



NOAA Technical Memorandum OAR PPE-3

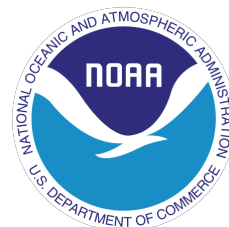
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**An Evaluation of NOAA's
Planning, Programming,
Budgeting & Execution System
(PPBES)**

**Final Report Submitted to the
NOAA Executive Panel on
March, 2009**

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April, 2015



FOR MORE INFORMATION:

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List of Acronyms

ABC	activity-based costing
AA	Assistant Administrator (Line Office)
AGM	Annual Guidance Memorandum
AOP	Annual Operating Plan
AUV	autonomous underwater vehicle
C&T	Commerce & Transportation (Goal, Goal Team)
CC	Council Chair
CFO	Chief Financial Officer (Line Office)
CORL	Consolidated Observation Requirements List
DAA	Deputy Assistant Administrators (Line Office)
DOC	U.S. Department of Commerce
DoD	U.S. Department of Defense
DUS	Deputy Undersecretary
E2E	end-to-end (budget information system)
FMC	Financial Management Center Manager
FMP	Fishery Management Plan
FTE	full-time employee
GAO	Government Accountability Office
GPRA	Government Performance and Results Act
GTL	Goal Team Lead (Mission Goal)
GT	Goal Team
HFIP	Hurricane Forecast Improvement Project
HQ	Headquarters
IEA	Integrated Ecosystem Assessment
LO	Line Office
NAO	NOAA Administrative Order
NEP	NOAA Executive Panel
NESDIS	National Environmental Satellite, Data, and Information Service
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NOSA	NOAA Observing Systems Architecture
O&M	operations and maintenance

OAR	Office of Oceanic and Atmospheric Research
OECD	Organization for Economic Co-operation and Development
OFA	Office of Finance and Administration
OMB	Office of Management and Budget
PA&E	Office of Program Analysis and Evaluation
PAR	Performance and Accountability Report
PART	Program Assessment Rating Tool
PDM	Program Decision Memorandum
PIRS	Program Information Reporting System
PMA	President's Management Agenda
PM	Program Manager
POP	Program Operating Plan
PPA	Program, Project, and Activity
PPB	Planning, Programming, and Budgeting
PPBES	Planning, Programming, Budgeting, and Execution System
PPBS	Planning, Programming, and Budgeting System
PPI	Office of Programming, Planning, and Integration
PRT	Program Review Team
RTL	Regional Team Lead
SGTL	Support Sub-Goal Team Lead (Mission Goal)
SO	Staff Office
SOD	Staff Office Director
UAS	unmanned aircraft system
UAV	unmanned aerial vehicle
USEC	Undersecretary (of Commerce for Oceans and Atmosphere)
VADM	Vice Admiral (Conrad C. Lautenbacher, Jr., US Navy [retired])
W&W	Weather and Water (Goal, Goal Team)
WG	PPBES Review Working Group

Executive Summary

During the past six years, the National Oceanic and Atmospheric Administration (NOAA) has implemented a Planning, Programming, Budgeting, and Execution System (PPBES) similar to that employed at the U.S. Department of Defense (DoD). NOAA adopted this system to achieve compliance with external demands for improved strategic management and performance-based budgeting, as set forth in the President's Management Agenda and Government Performance and Results Act (GPRA). According to NOAA Administrative Order (NAO) 216-111 (June 2007; Appendix 2), the goals of PPBES are four-fold:

- To continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- To ensure NOAA satisfies statutory and regulatory duties assigned to it;
- To attempt to satisfy the highest priority needs of NOAA's customers; and
- To improve resource utilization.

Functionally, PPBES is a requirements-based, integrated series of processes that:

- Uses NOAA's strategic vision and mission to drive annual investment and management priorities, programmatic and policy choices, and budget and organizational development;
- Provides a systematic approach to reviewing performance and progress, allocating resources optimally to satisfy NOAA's statutory and regulatory duties, and to maximize programmatic impact; and
- Identifies, analyzes, and resolves key policy, organizational, and managerial decisions that are critical to NOAA's success.

It is important to note that, in the description of processes and goals noted above, PPBES is not described as a system for wealth management (that is, increasing the budget), but rather for optimizing resources to achieve strategic performance goals.

This report responds to the NOAA Deputy Undersecretary's (DUS) charge to produce a comprehensive assessment of PPBES and to elucidate: 1) the benefits of NOAA's PPBES, 2) its costs, 3) the degree to which the former offsets the latter, and 4) options for improving the value of PPBES to NOAA. The findings presented below (one general, 10 specific) address the first three elements of the DUS charge. The recommendations, offered for consideration, address the fourth element of the charge. The problems associated with NOAA PPBES are multifaceted and difficult to separate; as a result, no one recommendation will address all of the findings. The recommendations represent a menu of possible options, which NOAA may choose to implement piecemeal or in combination.

In the preparation of this report, the PPBES Review Team solicited views from individuals and groups of people involved within each of the four phases of PPBES and made every effort to obtain diverse and representative views from across the agency. To maximize the possibility of obtaining all relevant information within the time available, the Team relied upon five mechanisms: a literature review, an open-ended questionnaire, a focus group, a Working Group

(WG), and the collective expertise and experience of the participants and of the Team itself. Preliminary drafts of this report underwent extensive review by the WG, NOAA Councils, external academic reviewers, and the NOAA Executive Panel.

While the Team was unable to conduct a formal cost-benefit analysis, evidence suggests that, although there are benefits from PPBES as implemented at NOAA, organizational units are experiencing a strain on financial and human resources as they try to meet the demands of PPBES. Regardless of any claim about benefits relative to cost, there is no question that NOAA will continue to be required to operate some type of performance based budgeting system to comply with Federal law, policies, regulations, and societal expectations of “good government” (perhaps most importantly, GPRA). We, therefore, conclude that NOAA’s current PPBES should be improved, not eliminated, to satisfy these requirements.

General Finding: To the extent that it meets the goals and functions of the NOAA Administrative Order, PPBES is a valuable system for NOAA and should be maintained. However, based on this study, there is no organizationally agreed upon measure of PPBES success. As a result, there is neither universal understanding nor acceptance of the purpose of the PPBES process: the intelligent allocation of scarce resources against strategic, corporate priorities. The misperception that PPBES is a process to increase the budget persists and, as a result, individual office or program interests, rather than corporate or national interests, still dominate conversation within the PPBES process. Without modification, individual office interests will continue to dominate.

By formally implementing a planning, programming, budgeting, and execution system, NOAA is attempting to do something new to its own organizational culture, and ambitious within the Federal, civilian (i.e., non-DoD) government as a whole. It is reasonable to expect challenges when embarking on such a novel and significant endeavor. Indeed, NOAA has encountered difficulties in implementing PPBES, but has responded by adjusting its system to address those challenges. NOAA should continue its PPBES to improve its operational efficiency. The approach taken by NOAA is the right thing to do to responsibly manage the public’s financial resources. It is required by Federal law, executive order, supported by NOAA and senior Federal government leadership, and is consistent with principle of “good government.”

More specifically, the Team found:

Culture: NOAA's culture is changing for the better because of PPBES. However, even though NOAA’s workforce is more familiar with the analytical rigor expected within PPBES, it perceives itself as unable to deliver that rigor and thus is a workforce that, per the results of this study, is unsatisfied, frustrated, overworked, and ultimately inefficient.

Cost: The perception is that implementation of NOAA's PPBES has generated direct, indirect, and opportunity costs beyond what was previously spent across NOAA on strategic planning, budget formulation, and budget execution. However, the exact costs of PPBES are difficult, at best, to determine.

Complexity: One of the most frequently cited problems with PPBES stems from the on-the-ground running of the system. Reactions were visceral. Respondents described PPBES with words such as cumbersome, confusing, process heavy, painful, frustrating, and oppressive. This may not necessarily be a result of PPBES itself, but of NOAA's implementation of it.

Workforce: Participation in PPBES is viewed as an additional duty placed upon existing Federal employees whose job classifications do not include PPBES as a primary function. This imposes an opportunity cost upon core mission functions and, at the same time, means that PPBES functions are not performed by specialists in program analysis.

Communication: The perception is that communication has improved within PPBES phases (particularly planning) but not across PPBES phases, where corporate intent is perceived as being neither stable nor transparent. There is insufficient feedback to those working in prior phases on how prioritization decisions are made in the current phase.

Synchronization: There is a perception that there are significant disconnects among the phases of PPBES, particularly between planning and programming ("PP") and budgeting and execution ("BE"), and including insufficient feedback from execution through actual appropriations back into the planning and programming cycles. This may be preventing the potential benefits of an integrated PPBES from being realized.

Organization: The study revealed the perception that NOAA has segregated, or has at least not sufficiently integrated, the responsibilities of those who plan and program from those who budget and execute. This exacerbates the problem of communications and creates multiple, potentially conflicting authorities.

Information Technology: The perception exists that the on-the-ground PPBES workforce does not currently have access to a mature and truly "end to end" information system. Multiple, disjointed systems, either in place (e.g., CasaNOSA; the Program Information Reporting System, or PIRS; and budget systems) or under development (e.g., End-to-End (E2E)), are presently insufficient for performing the complex analytical functions inherent in PPBES.

Implementation: PPBES process is not uniformly implemented across NOAA. Different Goal Teams and Line Offices implement their roles within PPBES and execute the PPBES process differently. These differences of implementation exacerbate the communications and complexity issues being experienced.

Compatibility: The perception exists that tradeoff analysis, which is the core of PPBES, may favor some programs over others because some programmatic outputs are easily quantified from a cost benefit perspective and tend to do better than those outputs that are harder to quantify. In particular, this puts research and mission support programs at a disadvantage.

Based upon these findings, the Team offers 1 general recommendation and 10 specific recommendations; the latter are organized as answers to the most pressing questions facing NOAA in its implementation of PPBES.

General Recommendation: PPBES at NOAA should be improved, not eliminated. NOAA is making substantial progress toward the goals stated in NAO 216-111 and with respect to the findings of the Program Review Team. Though we cannot determine the exact degree of this progress without metrics, the information collected in this study is more than sufficient to indicate that progress is occurring.

The Team was asked to provide recommendations it believes are simple and relatively costless to implement in the near-term (so-called “low hanging fruit”), as well as recommendations it believes are most important to implement, regardless of cost, over the long-term. Although it is beyond the scope of this review to vet the various recommendations from cost-benefit perspective, in this first set of recommendations the Team has attempted to address the question:

What can we readily do to make NOAA’s PPBES easier and more effective?

To address this question, NOAA should consider the following:

- 1. Provide consistent corporate messaging as to the purpose of PPBES, and develop commensurate performance metrics for PPBES itself.**
- 2. Simplify and streamline PPBES processes to reduce workload.**
- 3. Increase transparency of decisions made in each phase.**
- 4. Provide PPBES training broadly to NOAA staff.**
- 5. Develop a “community of practice” for NOAA PPBES.**

PPBES necessarily requires more information and more analysis than the budget formulation and execution systems that predated it. The heart of PPBES are rational and comprehensive programmatic tradeoffs, which require information on all program requirements, costs, and benefits, and require time and expertise devoted to policy and program analysis. PPBES will always demand more information and more analysis. Thus, with the second set of recommendations, the Team addresses the next pertinent question:

How much and what kind of information and analysis are appropriate?

To address this question, NOAA should consider the following:

- 6. Conduct a comprehensive PPBES process review.**
- 7. Formalize the roles and responsibilities of the PPBES workforce.**

PPBES necessarily entails a dualistic view of the agency; there must be both a program structure (defined by strategic goals and objectives) and an organization structure (defined by appropriation lines). There will always be some degree of complexity involved in tracking items

between “two sets of books.” Thus, the third set of recommendations address the following question:

How do we facilitate traceability between structures (program and organization)?

To address this question, NOAA should consider the following:

- 8. Fully implement the information technology tools for tracking items across structures.**
- 9. Ensure consistent definition and labeling of a limited number of priorities.**

PPBES does not necessarily entail matrix management; the fact that there are two structures (for the program and for the organization) does not mean that there needs to be two managerial hierarchies, with distinct and often divergent cultures and vocabularies. Planning, programming, budgeting, and execution can all be performed by a single hierarchy and within traditional organizational roles. The fourth set of recommendations therefore address the question:

How can alternative managerial practices facilitate PPBES?

To address this question, NOAA should consider the following:

- 10. Better align the program and organizational structures.**

As stated earlier, the recommendations above represent a menu of possible options, which NOAA may choose to implement piecemeal or in combination. It was not possible given the review methods to prioritize the problems and recommendations objectively. Given the previously stated limitations of this review, a more thorough analysis may be necessary before deciding to implement any of these recommendations.

Introduction

In 2002, the National Oceanic and Atmospheric Administration (NOAA) was introduced to a Planning, Programming, and Budgeting System (PPBS) similar to that employed at the U.S. Department of Defense (DoD). NOAA adopted this system to achieve compliance with external demands for improved strategic management and performance-based budgeting, as set forth in the President's Management Agenda (PMA) and Government Performance and Results Act (GPRA). In 2004, NOAA amended its PPBS by incorporating *execution* into its construct, and the system is now known as the Planning, Programming Budgeting, and Execution System (PPBES). According to NOAA Administrative Order (NAO) 216-111 (June 2007; Appendix 2), PPBES is a requirements-based, integrated series of processes that:

- Uses NOAA's strategic vision and mission to drive annual investment and management priorities, programmatic and policy choices, and budget and organizational development;
- Provides a systematic approach to reviewing performance and progress, allocating resources optimally to satisfy NOAA's statutory and regulatory duties, and to maximize programmatic impact; and
- Identifies, analyzes, and resolves key policy, organizational, and managerial decisions that are critical to NOAA's success.

At the end of FY 2008, NOAA's PPBES will complete its third full cycle, covering all four phases of the system. With this experience in place, and in advance of the arrival of a new administration, the NOAA Deputy Undersecretary commissioned an internal study to gauge the efficiency and effectiveness of this system. Co-chaired by Michael Abreu – the Chief Financial Officer (CFO) of NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) - and Gary Matlock – the acting Deputy Assistant Administrator (DAA) of NOAA's Office of Programming, Planning, and Integration (PPI) - and assisted by Theresa Goedeke and Avery Sen (I.M. Systems Group), this team (the "Team" hereafter) conducted its evaluation effort from June through August 2008.

The Team's goal in this review was to produce a comprehensive assessment of PPBES by soliciting views from individuals and groups of people involved within each of the four phases of PPBES. We made every effort to obtain diverse and representative views from across the agency. To maximize the possibility of obtaining all relevant information within the time available, the Team relied upon five mechanisms: a literature review, an open-ended questionnaire, a Focus Group, a Working Group (WG), and the collective expertise and experience of the participants and of the Team itself.

Through the literature review, the Team synthesized important background information on the history and theory of PPBES to orient itself with an understanding of how this system, and others like it, have been used and assessed in other contexts. Through the questionnaire, the Team solicited input from dozens of leaders in NOAA who were responsible for implementing PPBES. Through the focus group, the Team gained access to the opinions of a small, existing,

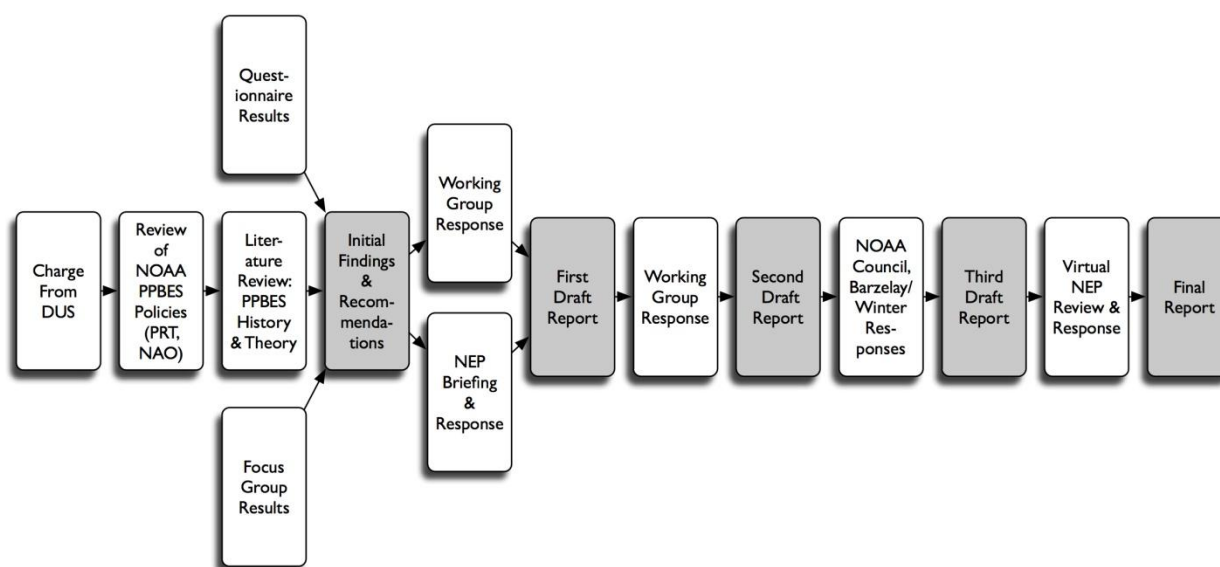
self-organized set of individuals who engage in PPBES-related work on a daily basis. The intent of the questionnaire was to learn the perspectives of those at the “strategic” level, the focus group at the “tactical” level. Both instruments were aimed at getting answers to the following key questions:

- What are the benefits of PPBES to NOAA?
- What are the direct and indirect costs of PPBES to NOAA?
- Are the costs of PPBES acceptable relative to the benefits?
- How can NOAA improve its implementation of PPBES?

The Team also relied upon a WG to review and comment on a set of draft findings and recommendations. To populate the WG, nominations for membership were solicited from the NOAA Executive Panel (NEP). Working group members were asked to convene as a group, generate a consensus-based report to present their views and recommendations to the Team, and to provide any information or data to support their views. The WG conducted its work by formulating a set of recommendations in response to initial findings that the Team derived from the literature review, questionnaire responses, and focus group results. (Figure 1 below depicts the research process from beginning to end.)

Finally, the Team brought its own collective expertise and experience to bear on the development of findings and recommendations through several stages of drafting. Upon receiving comments from the WG on the initial draft, the Team composed a second draft for review and comment by all NOAA Councils, as well as Drs. Michael Barzelay (London School of Economics) and Sidney Winter (Wharton School of the University of Pennsylvania), who were conducting a parallel, external case study of strategic management reform at NOAA. The Team used this feedback to produce a third draft, which was presented to and commented upon by 110 NOAA budget formulation and execution employees at the NOAA budget conference on 30 October 2008. A fourth draft was presented to the NEP on 4 December 2008. NEP comments were considered and incorporated into one final revision, and the resulting final report was submitted to the NEP for approval on 6 February 2009.

Figure 1: A Schematic of the PPBES Review Process



This report is organized roughly in relation to the research process illustrated above, which will enable the reader to engage in the same experience of discovery as the Team. We begin with the initial charge to the review team from DUS Mary Glackin. Following the charge is a section that frames NOAA's PPBES in the broader historical and theoretical context of program budgeting in government. From there, we progress to the results of the questionnaire responses and the focus group, as well as the WG's formal response to initial findings. We conclude with final findings and recommendations. Please note that the information included in the body of the report consists of the sources of data and information used to determine final findings and recommendations. Information included in the appendices consists of documents that had bearing on the report, but that are not considered sources of primary data in themselves.

Charge for PPBES Review

The DUS's initial charge for an evaluation of NOAA's PPBES was delivered verbally to the NEP on 5 June 2008. It was followed in written form on 11 June 2008. The formal charge is presented below. However, this charge was modified three times with approval from the DUS.

First, an Implementation Plan (Appendix 3) changed the composition and purpose of the WG by enlarging it, removing the Team from its membership, and designating the use of the WG only to review materials.

Second, at a meeting on 11 August 2008, the NEP requested: a) additional reviews of the report by NOAA's corporate Councils, b) modification of the due date for the final report to 10 October 2008, and c) internal publication of the final report to afford NOAA's workforce an opportunity to comment.


Third, a briefing to the NEP for approval of the final report took place on 4 December 2008, resulting in revisions and, consequently, changing the due date for the final report to 6 February 2009.



UNITED STATES DEPARTMENT OF COMMERCE
The Deputy Under Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

JUN 11 2008

MEMORANDUM FOR: NOAA Executive Panel

FROM: Mary M. Glackin 
Deputy Under Secretary for Oceans and Atmosphere

SUBJECT: Planning, Programming, Budgeting, and Execution System Review

During the June 5 NOAA Executive Panel (NEP) meeting, I outlined the charge for the NEP evaluation of the Planning, Programming, Budgeting, and Execution System (PPBES). Details of the evaluation are provided in the attachment. A draft report on the evaluation findings and recommendations will be delivered to the NEP by the end of this August. The need for further analysis and development of specific recommendations will be assessed at that time.

Attachment



Charge for PPBES Review

“PPBES” is NOAA’s integrated, requirements-based Planning, Programming, Budgeting, and Execution System that is designed to:

- Use NOAA’s strategic vision to drive annual investment and management priorities, programmatic and policy choices, and budget development; and
- Provide a systematic approach to allocating resources optimally and maximizing programmatic impact.

Adapted from established PPBS practices in the Defense Department, PPBES was designed to address NOAA’s corporate decision-making needs, based on recommendations of the 2002 NOAA Performance Review Team. It also was designed to comply with external demands for improved strategic management and performance-based budgeting, as set forth in the President’s Management Agenda and Government Performance and Results Act.

NOAA first used the PPBES in developing the FY 2005 budget and, at the end of FY 2008, will have completed three full cycles covering all four phases of the system. With this experience in place, it is timely to gauge the efficiency and effectiveness of this system relative to its stated goals, to identify lessons learned and opportunities for improvement. To this end, the NOAA Executive Panel will commission an internal evaluation of PPBES to address the following central questions:

1. What are the benefits of PPBES to NOAA? Considerations include—per the 2002 NOAA PRT report—improved integration across Line Offices, increased efficiency, more management visibility, increased responsiveness to customer needs, and support for the President’s Management Agenda.
2. What are the direct and indirect costs of PPBES to NOAA? Considerations include the monetary and personnel costs of PPBES, the organizational and technical infrastructure required to sustain the PPBES, and problems NOAA has encountered in implementing the PPBES.
3. Are the costs of PPBES acceptable relative to the benefits?
4. How can NOAA improve its implementation of PPBES? What are the costs and benefits of alternative approaches? Given the costs and benefits, how acceptable are these alternative approaches when compared to PPBES as it is presently implemented?

Approach

This evaluation will be conducted by an internal, ad hoc working group that will report directly to the NOAA Executive Panel. The working group will be chaired by Dr. Gary Matlock, Director of the NOS National Centers for Coastal Ocean Science, and Michael Abreu, NESDIS CFO. The chairs will select and direct the activities of a focused working group of approximately 8-10 people who collectively represent a balanced cross-section of NOAA’s “strategic organization” (Goals and Programs) and “execution organization” (Line and Staff Offices).

Research Phases and Structure of Final Report

In the conduct of this evaluation, the Working Group should make every effort to obtain diverse and representative views from across NOAA's organizational functions, using interviews, surveys, and data requests as appropriate to address the central questions put forth in this charge. While the Working Group will pursue its own methodology given resource, time, and data constraints, the effort will likely need to consider the following factors:

1. Context: PPBES as a Decision-Making Discipline

- *The purpose of PPB(ES) w.r.t. alternatives*
- *PPB(ES) at other agencies: observed strengths and weaknesses*
- *PPBES implementation at NOAA: purpose and key attributes*

2. Evaluation Methods and Metrics

- *Are there pre-existing PPB(ES) evaluation methods in the literature?*
- *What evaluation criteria and metrics work best for NOAA, given the purpose of PPBES?*
 - *Metrics or proxies for "ROI"; e.g. fiscal and programmatic benefits relative to implementation costs*
 - *Satisfaction of internal / external participants or users with PPBES outputs*
 - *Organizational learning and growth; e.g., has PPBES addressed concerns of the original PRT?*
 - *Impact on working relationship with partners; e.g. does PPBES provide shared or standardized management practices for NOAA and its partners?*

3. Data Gathering and Analysis

- *Data required*
 - *LO / SO data on implementation costs (direct and indirect); actual v. required information, expertise, and analytical tools and resources*
 - *Quantitative benefits assessment: successful fiscal initiatives and investment decisions; strength of NOAA's budget position relative to other agencies and bureaus*
 - *Qualitative benefits assessment: value of programmatic integration and optimization; value of "readiness" in budget and policy context*
- *Data sources*
 - *Internal data calls*
 - *Recent investigation and assessments (e.g. Carney report on training needs)*
 - *Interviews and group discussions with Goal Teams, Program Managers, Line Office leadership, corporate analysts, and perhaps limited discussions with external users of PPBES outputs (DOC Budget Office, OMB examiners)*

4. Findings and recommendations

- *Are the costs of the PPBES acceptable relative to the benefits?*
- *What changes are needed to improve the value of PPBES to NOAA?*

Timeline

A draft report on the evaluation findings and recommendations will be delivered to the NEP by the end of this August. The need for further analysis and development of specific recommendations will be assessed at that time.

Timeline of PPBES Review

Table 1: Timeline of PPBES Review

Date	Event, Product or Activity
02-Jun-08	Drafting of <i>Charge for PPBES Review</i>
10-Jun-08	Team convened
11-Jun-08	Approval/issuance of <i>Charge for PPBES Review</i> by DUS Development of review methods
13-Jun-08	Input solicited from NEP on tentative implementation plan
18-Jun-08	Meeting with NOAA PPBES “Lunch Bunch” (which later became the Focus Group)
19-Jun-08	Draft Implementation Plan sent to DUS for review
23-Jun-08	DUS feedback/approval of <i>PPBES Review Tentative Implementation Plan</i>
26-Jun-08	Sent <i>PPBES Review Tentative Implementation Plan</i> to NEP
26-Jun-08	<i>PPBES Senior Level Feedback Questionnaire</i> dispatched
27-Jun-08	Met with NOS and OAR PPBES representatives as requested
27-Jun-08	DUS approval of proposed PPBES Review group proposal
30-Jun-08	<i>PPBES Senior Level Feedback Questionnaire</i> dispatched to Deputy AAs
30-Jun-08	NOAA PPBES Evaluation WG members solicitation issued
02-Jul-08	NOAA PPBES Evaluation WG members nomination due
07-Jul-08	<i>PPBES Senior Level Feedback Questionnaire</i> -reminder dispatched
09-Jul-08	<i>PPBES Senior Level Feedback Questionnaire</i> -reminder dispatched Coding of questionnaire responses begins
10-Jul-08	<i>PPBES FMC Manager Feedback Questionnaire</i> dispatched
11-Jul-08	<i>PPBES Senior Level Feedback Questionnaire</i> due
14-Jul-08	WG created
16-Jul-08	Met with OAR PPBES representative as requested
16-Jul-08	PPBES Evaluation Focus Group session conducted
17-Jul-08	<i>PPBES FMC Manager Feedback Questionnaire</i> -reminder dispatched PPBES WG convened
18-Jul-08	<i>PPBES FMC Manager Feedback Questionnaire</i> due Draft Report of Focus Group outcome sent to Focus Group participants
21-Jul-08	Comments due from Focus Group participants on draft Focus Group report Last day questionnaire responses accepted
28-Jul-08	Sent three draft chapters of PPBES Review Final Report to WG
29-Jul-08	Sent initial findings to WG
30-Jul-08	Sent revised initial findings to WG
31-Jul-08	Verbal feedback from WG on initial findings
01-Aug-08	Received preliminary, written comments from WG
04-Aug-08	Briefing of preliminary findings to AA for PPI and NOAA CFO
06-Aug-08	Briefing of preliminary findings to DUS

	Sent briefing presentation of preliminary findings to NEP and WG
07-Aug-08	Written responses from WG due
11-Aug-08	Presentation of preliminary findings to the NEP
12-Aug-08	Debrief for WG of NEP presentation/feedback
21-Aug-08	First draft of PPBES Review Final Report sent to WG
	Received first draft of "NOAA PPBES Review Working Group Summary Recommendations"
26-Aug-08	WG comments on first draft of PPBES Review Final Report due
27-Aug-08	Consensus comments on Draft 1 of PPBES Review Final Report received from WG
28-Aug-08	Individual comments on Draft 1 of the PPBES Review Final Report received from WG
05-Sep-08	Team provides Draft 2 to Councils and Barzelay for comment
09-Sep-08	Received "NOAA PPBES Review Working Group Summary Recommendations," final draft
19-Sep-08	Councils, Barzelay comments on Draft 2 due
22-Sept-08	Meeting with WG to discuss the draft PPBES Review Report
26-Sep-08	Verbal feedback received by Barzelay and Winter
28-Oct-08	Provided Draft 3 to NEP members for review and comment
31-Oct-08	Draft 3 presented at NOAA Budget Conference
14-Nov-08	NEP member comments on Draft 3 due to Team
25-Nov-08	Revised per NEP member comments
27-Nov-08	Pre-brief PPI, PAE, and NOAA CFO
28-Nov-08	Submitted Draft 4 to NEP
04-Dec-08	Presentation of Draft 4 to NEP
26-Jan-09	Revised per NEP comments
06-Feb-09	Submitted Final Report to NEP

Background: History and Theory of PPBES

NOAA Implements PPBES

An agency within the U.S. Department of Commerce (DOC), NOAA provides environmental information, research, regulation, and intergovernmental grants to the public. These services are provided by the agency's Line Offices (LOs), including the National Weather Service, the National Ocean Service (NOS), and the National Marine Fisheries Service (NMFS), most of which were pre-existing bureaus incorporated under the NOAA umbrella by an Executive Order in 1970.

NOAA's stated mission is "to understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs." The NOAA Strategic Plan decomposes this corporate-level statement into four underlying Mission Goals and one Mission Support Goal:

- 1) Protect, Restore, and Manage the Use of Coastal and Ocean Resources Through an Ecosystem Approach to Management;
- 2) Understand Climate Variability and Change to Enhance Society's Ability to Plan and Respond;
- 3) Serve Society's Needs for Weather and Water Information;
- 4) Support the Nation's Commerce with Information for Safe, Efficient, and Environmentally Sound Transportation; and
- 5) Provide critical support for NOAA's Mission.¹

According to NOAA's Strategic Plan, every function of the agency is undertaken for the sake of at least one of these goals, as well as a derivative set of lower level outcomes and objectives. NOAA's mission statement and its strategic goals, as they are framed here, are the result of a series of management reforms instituted by NOAA's current Administrator, Vice Admiral (VADM) Conrad C. Lautenbacher, Jr., US Navy (retired).

Upon his arrival at the agency, the VADM commissioned a review of the NOAA program. In 2002, the VADM's Program Review Team (PRT) found that NOAA was generally doing a good job in executing current missions, but had little corporate identity and no clear strategic vision. Some existing capabilities were duplicative and unnecessary, some necessary capabilities were nonexistent, and many capabilities were inefficiently aligned with missions. Among the major structural changes recommended by the PRT were:

The PRT recommends the development of a requirements-based management process... to be managed centrally... When fully developed, this process will tighten the linkage between program needs and available resources, leading to improved information for evaluating opportunities, establishing priorities, and making sound programming decisions. In the long

¹ *New Priorities for the 21st Century - NOAA Strategic Plan*. National Oceanic and Atmospheric Administration (2005). Available at: www.ppi.noaa.gov/pdfs/STRATEGIC%20PLAN/Strategic_Plan_2006_FINAL_04282005.pdf

term, the PRT envisions the requirements-based management process being fully integrated with planning, programming and budgeting processes, ensuring an ‘end-to-end’ system for managing NOAA’s current and future mission tasking.

...The PRT did not recommend an immediate reorganization of NOAA’s line offices. In the near term, the PRT proposes using matrix management principles to improve coordination of programs across the Agency. Within the next five years, the PRT recommends alignment of planning, programming, and budgeting along thematic as opposed to organizational lines. In the long term, the PRT proposes realigning the Agency along functional lines to facilitate NOAA’s future mission. The PRT also identified some immediate and near term opportunities for structural changes and process improvements.

Utilizing a matrix management approach, program managers will be empowered with funds, staffed by teams with the necessary talent, and provided with the direction to effectively execute crosscutting programs. Additionally, restructuring the NOAA budget along crosscutting programs instead of organizational lines will foster horizontal integration. This programmatic focus is typical of how most Federal agencies conduct business. Funding for these crosscuts would be allocated to each line office, but administered and monitored by the program manager.²

Based upon recommendations of the 2002 NOAA PRT, the VADM implemented a PPBS similar to the PPBS system employed at DoD. In 2004, following the DoD inclusion of *execution* into its PPBS, NOAA likewise incorporated execution into its renamed PPBES. As defined in NAO 216-111, PPBES is a requirements-based, integrated series of processes that:

- Uses NOAA’s strategic vision and mission to drive annual investment and management priorities, programmatic and policy choices, and budget and organizational development;
- Provides a systematic approach to reviewing performance and progress, allocating resources optimally to satisfy NOAA’s statutory and regulatory duties, and to maximize programmatic impact; and
- Identifies, analyzes, and resolves key policy, organizational, and managerial decisions that are critical to NOAA’s success.

The stated goals of the NAO to implement PPBES are fourfold:

- To continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- To ensure NOAA satisfies statutory and regulatory duties assigned to it;
- To attempt to satisfy the highest priority needs of NOAA’s customers; and
- To improve resource utilization.⁴

² Final report of the NOAA Program Review Team to the NOAA Administrator (2002).

³ Op. cit, NOAA Administrative Order 216-111 (2007).

⁴ Ibid.

It is important to note that, in the description of processes and goals noted above, PPBES is not described as a system for wealth management (that is, increasing the budget), but rather for optimizing resources to achieve strategic performance goals. NOAA adopted this system to achieve compliance with external demands for improved strategic management and performance-based budgeting, as set forth in the PMA and GPRA. In his letter endorsing the recommendations of the PRT report, VADM Lautenbacher envisioned the following benefits from an agency-wide management reform that would include PPBES as a major component for budget formulation:

- a) Improved integration across LOs;
- b) Increased efficiency;
- c) More management visibility;
- d) Increased responsiveness to customer needs; and
- e) Support for the PMA.⁵

As implemented at NOAA, PPBES has become synonymous with other recommendations of the PRT that were implemented at the same time, including matrix management, the specific mission goals mentioned earlier, and establishment of corporate councils. It is important to note that these are not components of PPBES, which is, in the language of public administration, a system for *program budgeting* that is separate and distinct from the particular system of organizational management that accompanies it.

Initiated in 2003 for the FY 2006-2010 budget cycles, NOAA's PPBES will complete its third full cycle, covering all four phases of the system, at the end of FY 2008. With this experience in place, and in advance of the arrival of a new administration, the NOAA DUS has decided that it is time to gauge the efficiency and effectiveness of this system. As part of this effort, it is first necessary to understand what PPBES is, what it is supposed to accomplish, and how it has been used in other agencies.

What is PPBES?

PPBES is a specific form of the more generic notion of program budgeting (a theoretical depiction of PPBES is provided in Figure 2). In program budgeting, an agency organizes its budget by programs that have costs with respect to particular objectives, rather than the traditional organization of budget by expenditures with respect to particular classes of objects. Program budgeting was created in response to the problem most notably observed by V. O. Key in 1940:

The absorption of energies in the establishment of the mechanical foundations for budgeting has diverted attention from the basic budgeting problem (on the expenditure side), namely: On what basis shall it be decided to allocate x dollars to activity A instead of activity B?⁶

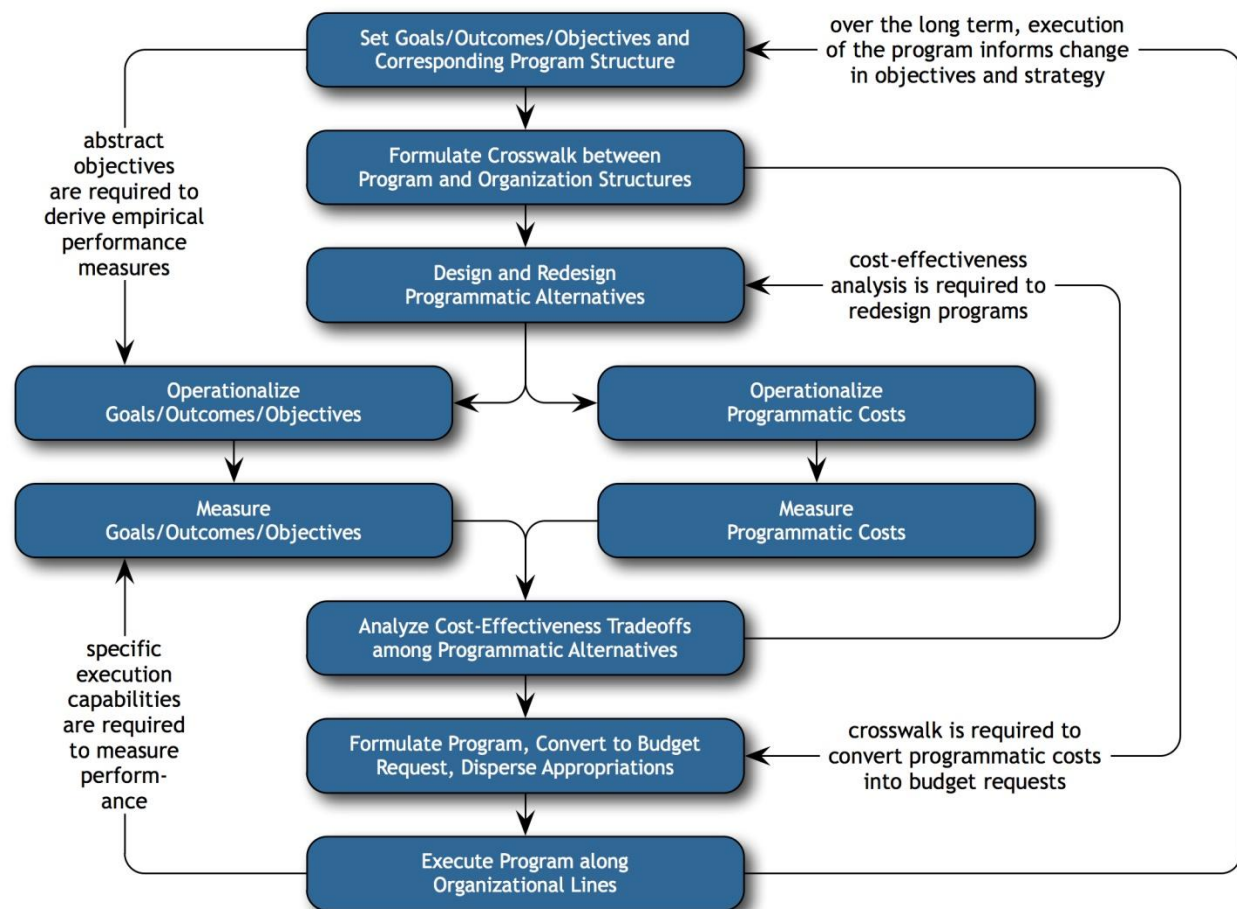
⁵ "NOAA Program Review Recommendations," Memorandum for the Honorable Donald L. Evans, Secretary of Commerce, (June 2002).

⁶ Key V. O., "The Lack of a Budgetary Theory," *American Political Science Review*, Vol. 34 (December 1940), pp. 1137-1144.

Key wanted “budgeteers” to focus upon the efficacy of budgets rather than efficiency - a revolutionary idea at the time. Taking cues from the methods of economists, he would have budgeteers analyze the marginal social utility of alternative expenditures. Key questioned the wisdom of budgeting by making incremental changes to the prior budgetary base, rather than continuous reexamination of the budget in an absolute sense with respect to predefined goals and objectives. Further, he questions the wisdom of relying solely upon people trained in accounting and fiscal procedure to creating the budget. Regarding the consequences of poor budgetary personnel policy, he writes:

The thousands of little decisions made in budgetary agencies flow by accretion into formidable budgetary documents which from their sheer mass are apt often to overwhelm those with the power of final decision. We need to look carefully at the training and working assumptions of these officials, to the end that the budget may more truly reflect the public interest.⁷

Figure 2: How PPBES Should Work in Theory



⁷ Ibid.

Burkhead and Miner define the purpose of program budgeting as "to attempt to measure, in systems terms, the relationship between inputs and outputs. This measurement, ideally, must be related to the organization that manages the program."⁸ Program budgeting is aimed towards three distinct, but interrelated, objectives:

- 1) Taxonomy: The classification of government activity by goals and objectives,
- 2) Analysis: the comparison of costs with outcomes and the exploration of alternative means of achieving outcomes, and
- 3) Planning: long range planning of government activities [with respect to their costs and outcomes].⁹

Formally dividing the budget process into three distinct steps of planning, programming, and budgeting (PPB) was first institutionalized in the DoD in the Kennedy Administration with the arrival of Secretary of Defense Robert McNamara. McNamara, formerly the Chief Executive Officer (CEO) of General Motors, wanted to apply a system of management by objectives to tame the competing interests among the many expanding bureaus under his control. He was drawing upon expertise in program budgeting developed at RAND, which itself drew upon operations research and systems engineering practices of the U.S. Navy during the Second World War.¹⁰

As developed at DoD, the PPB form of program budgeting differed from earlier forms in two important ways. First, it emphasized tradeoffs among programs, with choices informed specifically by systems analysis. Second, it was primarily a process for centralizing decisions, and only secondarily for improving programmatic effectiveness.¹¹ Burkhead and Miner write:

The program budget system of the Department of Defense was intended to, and did, concentrate decision authority in the Office of the Secretary of Defense. Program packages are defined here; the statistical information that is required for cross-walking is developed centrally. The budgetary authority of the bureaus within the service departments and of the departments themselves has been greatly diminished.¹²

According to Schick, PPB (and, by extension, other program budgeting systems) is the most recent in a sequence of three budgetary reforms in the 20th century (see Table 2). The first reform, beginning with municipal budgets in the 1920s and 1930s, assumed a perspective of *operational control* - it reported on the objects of expenditure as inputs into government activities to hold organizational units accountable for spending. The second reform, in the 1940s and 1950s, assumed a perspective of *managerial control* - it reported on the activities and their outputs to hold organizational units accountable for efficiency with respect to inputs. The third

⁸ Burkhead, Jess and Miner, Jerry, *Public Expenditure*, Chicago, IL: Aldine (1971), pp 70-76.

⁹ Ibid, pp 70-76.

¹⁰ Lee, Robert D. Jr., Johnson, Ronald W., and Joyce, Philip G., *Public Budgeting Systems*, Sudbury, MA: Jones and Bartlett (2008), pp. 149-151.

¹¹ Op cit, Burkhead and Miner, p. 184.

¹² Ibid, p. 182.

reform, which came with PPB in the 1960s, assumed a perspective of *corporate planning* - it reported on outputs and their intended outcomes to hold organizational units accountable for strategic goals.¹³

In addition to being ends/means-oriented (i.e., a “rational” approach to budgeting), PPB is also unique because it is *comprehensive* - it attempts to specify and taxonomize all of an agency’s ends, all of the agency’s means, and align the latter with the former. PPB is different from traditional budgetary systems because it reverses the traditional flows of information and decision. Top policy is made on agency purposes and plans before issuing the call for programmatic proposals and cost estimates. Further, whereas traditional budgetary decisions are incremental with respect to an existing base, decisions in PPB are “teleetic” with respect to an ultimate end state. Thus, the question is not, “This is where we are; where do we go from here?” Rather, the question is, “Where do we want to go, and what do we need to get there?”¹⁴

Table 2: PPBES as Part of a Larger Trend in Budget Reform

PPBES is a result of the most recent era of budgetary reform, which emphasizes centralized *planning* for the costs of outputs rather than *controlling* expenditures on inputs or *managing* appropriations for activities (adapted from Schick, 1966).

PPBES Phase	Intent	Administrative Perspective	Level of Control	Unit of Analysis	Subject of Analysis	Subject Monetization
Planning	"should"	Strategic Planning (1960s)	Central	Program	Output	Cost
Programming	"can"	Management Control (1940s)	Supervisory	Organization Element	Activity	Appropriation
Budgeting	"will"	Operational Control (1920s)	Operational	Object	Input	Expense
Execution	"is"	Traditional Control	—	—	—	—

From a historical perspective, PPB presupposes developments in the social sciences and information technology. It could not have evolved, nor could it be implemented as intended, without the pre-existing skills at the intersection of economics, engineering, and management science, or without the computers and databases that have been developed since the 1960s. Schick writes:

¹³ Schick, Allen, "The Road to PPB: The Stages of Budget Reform," *Public Administration Review*, Vol. 26, Number 4 (December 1966), pp. 243-258.

¹⁴ Ibid.

Without the availability of the decisional-informational capability provided by cost-benefit and systems analysis, it is doubtful that PPB would be part of the budgetary apparatus today. The new technologies make it possible to cope with the enormous informational and analytic burdens imposed by PPB.¹⁵

Here, Schick echoes Key's concern for the appropriate personnel. The first, most fundamental requirement for implementing PPB - or any other form of program budgeting, for that matter - is in retaining the appropriately-qualified staff, as well as the tools that it has at its disposal.

PPB in Other Agencies

PPB was adopted by NOAA (and a few other agencies, including NASA) several decades after it had been abandoned by other civilian agencies. It has been used at the Defense Department, however, ever since the Kennedy Administration and it was the current NOAA Administrator's experience at DoD that motivated the transplantation of PPB to NOAA.

Burkhead and Miner attribute the success of PPB at DoD to a number of factors. Most importantly, expanding budgets in the early 1960s allowed new research to start without tradeoffs for existing programs, thus relieving the pain of policy analysis. (This is somewhat ironic, as PPB is intended to manage tough decisions among multiple, competing objectives in an environment of scarce resources.) Also, DoD had at its disposal experienced personnel capable of performing systems analysis research. Further, the technological nature of military operations is particularly well-suited to cost-effectiveness analysis, where costs are simple to estimate and there are wide margins for evaluating strategic effectiveness.¹⁶

In 1965, premised upon this success, President Johnson issued an order requiring all civilian agencies to adopt a PPB approach to budget formulation. However, this experiment met with mixed success, and by the early years of the Nixon Administration, the PPB requirement was no longer enforced.¹⁷ In hindsight, a general criticism was that the wholesale switch to PPB was too ambitious a move, requiring too much data and new analytical expertise, and implemented with too little guidance from the Bureau of the Budget (now the Office of Management and Budget). On balance, however, it did have the positive - and not insignificant - results of encouraging agencies to begin to understand where their money was going, to make tough decisions among alternative courses of action, and thus to counterbalance the forces of special interests.¹⁸

Of the difficulties that arose when importing PPB to all civilian agencies, perhaps most fundamental was the measurement of programmatic costs of inputs and benefits of outputs, as well as the attribution of causal relationships between the two.

¹⁵ Ibid.

¹⁶ Op cit, Burkhead and Miner, p.184.

¹⁷ Op cit, Lee, Johnson, and Joyce, pp. 149-150.

¹⁸ Botner, Stanley B. "Four Years of PPBS: An Appraisal," *Public Administration Review*, Vol. 30, No. 4 (Jul. - Aug., 1970), pp. 423-431.

Program costs focus on outputs rather than inputs, and it is a significant challenge to account for the relationship between marginal operational and capital costs over the long-term. Costing is further complicated when the agency that finances a program is not the agency that produces the final output, as is the case with interagency transfers such as Federal grants to state or municipal governments, or with interprogram transfers of resources within a single agency.¹⁹

As for measuring benefits, the outputs of government are, by nature, public goods that are not appropriable and thus have no revealed market value. Burkhead and Miner note:

Where government output appears to be measurable and discrete... closer examination will reveal that these units frequently are not, in fact, comparable... there is no objective way of determining that one criterion is more important than another, and there is no way of aggregating the criteria to a single measurement of output.²⁰

Indeed, one of the most obvious differences between DoD and civilian agencies lies in the difference in the quantification and attribution of outcomes. This is particularly relevant for NOAA, where environmental outcomes are often intangible and subjective. On this distinction between military and civilian objectives, Botner writes:

It is one thing to quantify the benefits from the application of a stated volume of firepower to a specified target. It is quite another to quantify the benefits to the individual, his family, and society generally of a program to rehabilitate alcoholics, particularly if one considers the impact of intervening causative factors.²¹

Also among the operational difficulties was harmonizing the program structure (defined by the executive branch) with the organizational structure (defined by the legislative branch). This is particularly true at agencies - such as NOAA - where there is a history of semiautonomous bureaus with well-established relationships with Congress and interest groups.

Part of the problem rests in defining programs, and thus scoping the tradeoffs that may be made among programs and among alternatives within programs. Having many narrowly-defined programs may simplify analysis at the programmatically-local level, but will add complexity to analysis at the programmatically-global level. Having a few broadly-defined programs will result in the opposite problem. For activities that serve more than one purpose, program classifications may be forced and arbitrary, and efforts toward one objective or another are framed as larger or smaller than they really are. Assigning activities to programs becomes simpler when the program structure is more closely aligned to the organizational structure in the crosswalk.²²

In 1968, the Bureau of the Budget conducted a study of the implementation of PPB at 16 Federal civilian agencies through interviews and questionnaires of about 300 people at different levels of

¹⁹ Op cit, Burkhead and Miner, pp. 194-195.

²⁰ Ibid, pp. 195-197.

²¹ Op cit, Botner.

²² Op cit, Burkhead and Miner, pp. 186-190.

the agencies involved, as well as through analyses of organizational procedures and personnel data. The first conclusion of this study was that, in most agencies, the planning, programming, and budgeting functions are not performed much differently after PPB than before, indicating that it is an inherently difficult system to implement.

The second conclusion was that agencies that were successful in implementing the systematic planning and analysis required for PPB had several things in common:

- A sufficient number of analysts were assigned to both bureau and agency level staffs;
- The analysts were well-qualified;
- The analytic effort had access through the formal organizational structure to the heads of the agencies and bureaus, program managers, and lateral, particularly budget, staffs;
- Agency heads strongly supported the development and use of analytic outputs; and
- The general attitude in the agency was that the analytic effort is primarily for the benefit of the agency rather than for the Bureau of the Budget.²³

The study found a number of other factors that affected how the development of an analytic activity within an agency integrated into the agency's decisionmaking process as their PPB systems matured. These factors included:

- The extent of the participation in system and process design of officials most concerned with the effects that the system may have on programs;
- Performance of studies which demonstrate the usefulness of analysis and the publicizing of such studies;
- The attitude of congressional committees responsible for an agency's substantive activity and its appropriations;
- The attitude of the major clientele groups affected by the agency's programs;
- The attitude of the examining group with the Bureau of the Budget responsible for reviewing and evaluating the agency program;
- The susceptibility of the agency mission to analytic effort, notably the difficulty in designing benefit measures for the evaluation of programs;
- The difficulty of or the extent to which appropriate data and accounting systems have been developed;
- The degree of congruity between the analytic program structure and the agency's organization structure; and
- As an outgrowth of the previous two factors, the difficulty associated with translating cost and other information from the basic appropriations accounts in which the budget is prepared to the program structure in which it is examined and in which programs are evaluated.²⁴

In contrast to this relatively constructive criticism, perhaps the harshest assessment of PPB - and program budgeting in general - was made by Wildavsky. In his notorious 1969 article, "Rescuing Policy Analysis from PPBS," Wildavsky claimed that PPB is impossible to do well, and wasteful to try. He writes, "No one knows how to do program budgeting... Many know

²³ Harper, Edwin L., Kramer, Fred A., and Rouse, Andrew M. "Implementation and Use of PPB in Sixteen Federal Agencies," *Public Administration Review*, Vol. 29, No. 6 (Nov. - Dec., 1969), pp. 623-632.

²⁴ Ibid.

what program budgeting should be like in general, but no one knows what it should be in any particular case.” He criticizes its requirement for comprehensive information on all agency policies, which produces “vast amounts of random data... but no causal analysis” and ultimately “hides rather than clarifies.” Instead, he recommends focused, in depth analyses directed at topical issues of immediate importance to the agency and its domain of activity.²⁵

Modern Performance Budgeting

Wildavsky’s opinion that “no one can do PPBS” notwithstanding, it is doubtful that NOAA would – or could – abandon program/performance-informed budgeting or the perspective of strategic planning with respect to corporate objectives. It is unlikely that NOAA would switch back to earlier forms of budgeting, that is, the traditional control-based or management-based models described by Schick. Indeed, other agencies, such as NASA, have also recently (re)adopted PPBES as a “well-defined, structured, rational process for decision-making.”²⁶

Considering bipartisan support for legislation such as GPRA, and OMB requirements such as the Program Assessment Rating Tool (PART), it would be difficult for any agency to avoid linking its budget to its strategic planning and performance management. GPRA, enacted by Congress in 1993, requires that agencies develop strategic plans, annual performance plans, and annual program performance reports. PART is the current executive policy “vehicle” for meeting GPRA requirements. The Office of Management and Budget’s (OMB) Circular A-11 requires that agencies prepare a strategic plan that defines the agency’s strategic goals and objectives. It also requires, as part of an agency’s annual budget submission, a performance budget that integrates the annual performance plan required by GPRA.²⁷ OMB Circular A-11 provides the following definition of a performance budget:

A performance budget is a presentation that clearly explains the relationship between performance goals and the costs for achieving targeted levels of performance. In general, a performance budget links strategic goals with related outcome-oriented, long-term and annual performance goals and with the costs of specific activities that contribute to the achievement of those goals.

A performance budget starts with an overview of what the agency intends to accomplish in the budget year. For each strategic goal, the overview provides background on what has been accomplished, analyses of the strategies the agency uses to influence outcomes and how they could be improved, and analyses of the programs that contribute to that goal, including their relative roles and effectiveness, using information from Program Assessment Rating Tool

²⁵ Wildavsky, Aaron. “Rescuing Policy Analysis from PPBS.” *Public Administration Review*, Vol. 29, No. 2 (March - April 1969), pp. 189-202.

²⁶ Comstock, Doug, “NASA Overview” (PowerPoint Presentation), 17 October 2006. Available at: http://www.google.com/url?sa=t&ct=res&cd=3&url=http%3A%2F%2Fwww.gmupolicy.net%2Fspace%2Fshortcourse%2F3.ComstockNASAOOverview.pdf&ei=k5-gSMnoMpSUesWopKEF&usg=AFQjCNEXwUzIM9uhWFWHDJkKiCLVO4y9tA&sig2=HGUTActk-w2aldLSopi_kA

²⁷ OMB Circular Number A-11, Part 6, “Preparation and Submission of Strategic Plans, Annual Performance Plans, and Annual Program Performance Reports,” Section 200, p. 2 (2008). Available at: http://www.whitehouse.gov/omb/circulars/a11/current_year/s200.pdf

(PART) assessments. The overview should include expected outcomes for each strategic goal, and performance targets for the supporting programs. It should summarize how the agency expects to manage the "portfolio" of programs for each strategic goal together to maximize the larger strategic outcome.²⁸

Particularly parallel to PPB theory is OMB Circular A-11's requirement for cost-benefit analysis. OMB states that an agency's submitted program budget should include:

- A comparison of total program benefits and total program costs, using quantitative, objective data to the maximum extent possible, as well as qualitative or judgmental material.
- A comparison of the marginal benefits and the marginal costs associated with the additional funds or reduced funding proposed.
- Supporting information that takes into consideration agency and outside (e.g., think tanks, GAO, Congressional Budget Office, universities, interest groups) program evaluations and related analytic studies, whether or not they agree with the proposed policy.²⁹

Congressional and OMB requirements upon agencies to "show results" has meant that - despite the quiet demise of PPB after the Johnson Administration (and the similar demise of zero-based budgeting after the Carter Administration) - agencies still have an incentive to link budget allocations to performance relative to strategic goals and objectives. More recent attempts have been known as *performance-informed budgeting* (a.k.a. "performance-based budgeting," or PBB). Joyce has noted that agencies still grapple with the difficulties of establishing this link, but recommends that, in doing so, they pay particular attention to two factors:

- 1) The availability of appropriate information - on strategic direction, results, and costs - in order to make budgeting more results-focused, and
- 2) The actual use of that information to make decisions at each stage of the budgeting cycle.³⁰

These stages include agencies' internal *budget preparation*, *budget approval* by OMB and Congress, *budget execution* within the constraints set by OMB and Congress, and *audit and evaluation*, where evaluators determine the effects, a posteriori, of budgetary activities. Joyce has noted:

It is hard to overstate the importance of agency budget preparation to the overall effort to make the budget process more informed by performance. If the agency budget request, at all levels of the agency, has not laid the groundwork for relating funding to performance, it is highly unlikely that, as changes are made at higher levels (in OMB and the Congress, for example), the agency will be able to understand the performance implications of those changes. Further,

²⁸ OMB Circular Number A-11, Part 6, "Preparation and Submission of Strategic Plans, Annual Performance Plans, and Annual Program Performance Reports," Section 220, p. 2 (2008). Available at: http://www.whitehouse.gov/omb/circulars/a11/current_year/s220.pdf

²⁹ OMB Circular Number A-11, Part 2, "Preparation and Submission of Budget Estimates," Section 51, p. 4 (2008). Available at: http://www.whitehouse.gov/omb/circulars/a11/current_year/s51.pdf

³⁰ Joyce, Philip, *Linking Performance and Budgeting: Opportunities in the Federal Budget Process* (IBM Center for the Business of Government, 2004). Available at http://www.businessofgovernment.com/pdfs/Joyce_Report.pdf

when the agency implements its budget, it will be much more difficult for individual line managers to understand how they can use the money provided to them to help the agency maximize achievement of its strategic objectives. If these relationships are not well understood, agency managers and line employees may later find themselves managing “pots of money” without any clear understanding of how their actions can contribute to - or detract from - the overall performance of the agency.³¹

Performance-informed budgeting formally integrates strategic planning’s attention to outcomes with performance measurement at the earliest stages of budget preparation, and thus at the lowest levels of the agency. Planning links to performance at every phase of budget preparation and at every level of an agency - not only at the final phase of agency budget preparation at the corporate level, and not only to fulfill the PART requirements of OMB and the GPRA requirements of Congress.

The challenge, of course, is that strategic plans that are developed with performance measurement in mind can be quite extensive and time-consuming to produce, and measuring performance with respect to outcomes is more difficult and costly than measuring performance with respect to outputs. The degree of success that any agency has had implementing a performance-informed budgeting system remains a controversial question.

Aristigueta and Justice write that it is notoriously difficult to measure, optimize among, or even agree upon social outcomes. However, program budgeting is, at least, a useful tool for bridging the divide between economic and political approaches to budgeting. To be most useful, they write, performance information:

...needs to be *explanatory*. It needs not only to measure results but also to make it clear what the relationship is between quantitative budget inputs and quantitative and qualitative public outcomes, which means that we need for measurement regimes to incorporate not only theories of political goals and the related outcomes but also theories of the relationship between allocations, organizational responses, outputs, and those outcomes.³²

Program budgeting may serve to inform managerial choices of allocation or may simply have symbolic value of government accountability, but it does encourage more knowledgeable communication and deliberation and does facilitate better fiscal relations between elected officials and unelected administrators. Indeed, one of the major obstacles to program and performance budgeting has been Congressional participation. The Government Accountability Office (GAO) found that, “moving forward, for performance budgeting and program reviews to hold appeal beyond the executive branch and actually have an impact on legislation, congressional buy-in on what to measure and how to present this information is critical.”³³

³¹ Ibid.

³² Aristigueta, Maria P., and Justice, Jonathan B., “The Status of Performance Budgeting,” *Public Performance & Management Review*, Vol. 30, No. 1, September 2006, pp. 7–13.

³³ “How Performance Budgeting Can Help,” GAO-07-1194T, United States Government Accountability Office, September 20, 2007.

Reform toward performance-informed budgeting is no easier abroad than it is here in the United States. Many nations have attempted such reforms, appropriating and measuring performance with respect to outcomes, outputs, and programs themselves. The results have been mixed, but a study by Strerck and Sheers of seven Organisation for Economic Co-operation and Development (OECD) nations - including Australia, Canada, Sweden, the Netherlands, New Zealand, the United Kingdom, and the United States - found four major conditions for successfully implementing performance budgeting reform:

- 1) Aligning the fiscal framework with the results-oriented budget reform,
- 2) Creating legislative interest for performance,
- 3) Providing high-quality results information, and
- 4) Establishing leadership and authority of the central budget office.³⁴

These conditions are not surprising, and reflect very well many of the factors of success for U.S. civilian agencies attempting PPB in the late 1960s. The authors of this study found that a central issue is the extent to which performance information is used to inform executive branch political decisionmaking, decisionmaking in the internal business of departments and agencies, and decisionmaking in the legislative oversight process. There is little evidence to suggest that performance information is used in executive political decisions or legislative oversight. It is most often used within agencies, though more enthusiastically at the corporate level than at the program level.³⁵

Lessons Learned

From the literature reviewed above, we can distill a few thematic benefits and costs from PPBES (or some alternative implementation of program/performance-informed budgeting). PPBES has the potential to offer three types of benefits:

Shared Understanding: PPBES enables a shared understanding of what is being done, why it is being done, how much it will cost, and when it will happen. Ideally, this greater understanding of the agency is shared not only within the organization, but also with the Executive Office of the President, Congress, agency constituents and partner organizations, and the public at large. Shared understanding is beneficial because it develops trust among stakeholders and offers the option for more rational, consensual organizational change.

Rational Decisions: PPBES enables rational decisionmaking about how and if to change what an agency is doing through analyses of input costs and output benefits. This is in contrast to decisions that would otherwise be politically motivated or subject to institutional inertia. Rational decisions offer greater transparency for those within and external to the agency, and encourage greater participation in the decision making process. Rational decisions enable organizational changes that result in better outcomes per tax dollar spent

³⁴ Strerck, Miekatrien and Scheers, Bram, "Trends in Performance Budgeting in Seven OECD Countries," *Public Performance and Management Review*, Vol. 30, No. 1, September 2006, pp. 47–72.

³⁵ Ibid.

(i.e., efficiency). Ideally, it should increase the net social and economic benefits that accrue to the Nation from the portfolio of services that the agency provides.

Centralized Control: PPBES enables the strong central authority of the administrator in determining corporate strategy by focusing and prioritizing current and future activities. The most critical issues facing the agency can be addressed with greater rigor and less critical issues can be addressed with less rigor. Again, it should increase net social and economic benefits from the portfolio of services that the agency provides. In addition, top-down guidance on agency direction should make the entire process of budget formulation and performance management more efficient.

All of these benefits will ultimately accrue by developing programmatic portfolios that effectively and efficiently meet public needs, and by assuring stakeholders that this is indeed the case. These benefits, if they are to be realized, will come at no small cost. The following are the four types of cost garnered from the literature:

Analytic Complexity: PPBES requires information on inputs, activities, outputs, outcomes, programs, organizational elements, costs and benefits, as well as performance. Determining which data need to be collected, collecting them, attributing causal linkages among them, tracking these data across phases (e.g., with a crosswalk), and making them accessible to a diversity of analysts are significant operational challenges. Complexity arises also from the comprehensive (i.e., “teletic”) - as opposed to incremental - perspective that PPBES assumes. Complex information imposes the cost of sophisticated and human-accessible information systems. Complexity also poses the risk of collecting and analyzing information that has little or no genuine utility to the process.

Appropriate Workforce: More staff is required to do the analytic work, meaning that fewer person-hours can be allocated to the core business of the agency. Thus, there is an opportunity cost to direct mission activities. Human capital can be redirected to analytics activity both within programs and from programs to the corporate-level. Further, this additional staff will be qualitatively different from core staff in their expertise, which will limit the quality of communication about programmatic details. If the additional staff is not specialized for PPBES, then the quality of information and analysis will suffer, as will the quality of core mission activities that have been squeezed out.

Communication and Coordination: PPBES is not only dependent upon the existence of more information, but also on a greater degree of information transmission and coordination between actors. Increased communication must occur across mission-specific units for program integration, between programmatic units and corporate-analytical units, as well as up and down the hierarchical chain of command. Costs may arise from time spent in meetings, in personal communications, ensuring the understandability of guidance documents, etc.

Centralized Control: Stronger top-down control of the agency may be a cost as well as a benefit. If the individual components of the agency or the legislature have different priorities

than the administrator, and if these priorities would ultimately prove to yield greater net social benefit to the Nation than those of the administrator, then the cost of centralized control would be the difference in net social benefit between the two. In addition, a stronger administrator may upset the balance of power in an agency and lead to organizational friction, reducing the efficiency of the process of budget formulation and performance management.

It is also worthwhile to note what has *not* been considered a cost or a benefit: specifically the “benefit” of a budget increase or the “cost” of a budget decrease. An increase or decrease in the appropriated funds of an agency as a whole - or of one of its organizational elements - need not translate automatically to a gain or loss in social welfare (though it may translate into a gain or loss in the professional welfare of the agency and its partners). It is doubtful that one could justifiably attribute the activities of an entire agency to net social welfare because there is obvious difficulty in attributing more narrowly scoped programmatic activities to more particular outcomes.

Even if we did assume such a direct translation, we still could not assume that an agency’s budget increase (or decrease) was the best (or worst) way to spend Federal dollars. In the case of a budget increase for the agency, the opportunity cost of not funding another agency may outweigh the benefits of funding the first. Conversely, in the case of a budget decrease, we could not assume that the opportunity cost to social welfare of not funding the first agency was outweighed by the benefits to social welfare of funding another. Furthermore, the social welfare consequences of funding any agency could just as easily be weighed against the social welfare consequences of increasing/decreasing the Federal debt, or increasing/decreasing taxes.

Finally, there is no reason to assume that any change in funding is attributable to PPBES, either wholly or in part. Changes may be due to the particular political climate of the day, or the issues that happen to be in the public eye. Alternatively, they may be due to a warm (or cold) personal relationship between an agency administrator and the department head, the OMB director, and with Congressional appropriators.

Sources of Information and Data

Questionnaire Methods and Results

The Team was charged with collecting “diverse and representative views” about PPBES from across NOAA’s organization in a short period. The Team decided that the most efficient way to do this was administer a survey to all of those involved as leaders in the implementation of PPBES, as opposed to conducting personal interviews, solicitations of the entire NOAA workforce, or a hosting of focus groups.

Sampling Strategies and Population

In the interest of time, the Team restricted collection of information to only the Federal NOAA workforce. Without readily-available guidance from OMB on: 1) the applicability of the requirements to internal, non-public surveys within an agency, or 2) whether contractors are

considered “the public” in the instance of internal data collection efforts for the improvement of an agency wherein contractors work, the Team decided that solicitation of input from contractors should be avoided at this time. Therefore, input for this review was solicited only from NOAA Federal employees. As a result, it is critical to note that the experiences, beliefs, and opinions of contract personnel working in NOAA in some capacity within PPBES are not necessarily reflected in the findings drawn from these questionnaires.

The Team solicited information via the questionnaire from those people in NOAA who have primary responsibility for and authority over a specific aspect of NOAA PPBES, including those directly accountable for the execution of congressional appropriations to NOAA. Thus, the review team employed a non-probability, purposive sampling strategy in that we focused on a particular group of people within NOAA to collect information on the “strategic” and “execution” perspectives of PPBES from senior management. We recognize that the PPBES leaders’ perspective may not be representative of all views at NOAA. However, these individuals have responsibility for conducting PPBES and, therefore, it is reasonable to solicit their views as a first step in reviewing NOAA’s PPBES. Nevertheless, given this sample, the Team acknowledges that the findings reported for the questionnaire cannot be generalized to all groups or persons working in or with NOAA PPBES, such as middle management or lower level staff.

However, this broader group of senior-level management was composed of subgroup position categories:

- LO Assistant Administrators (AAs)
- LO DAAs
- Staff Office Directors (SODs)
- Mission Goal Team Leads (GTLs)
- Mission Support Sub-Goal Team Leads (SGTLs)
- Program Managers (PMs)
- Council Chairs (CCs)
- LO CFOs
- Regional Team Leads (RTLs)
- Financial Management Center (FMC) Managers

Persons in these position types were considered responsible for leading the execution, strategic, and regional activities within NOAA PPBES.

Population members for the feedback questionnaire were defined in one of two ways. Non-FMC senior-level officials engaged in PPBES were identified with the assistance of PPI, by searching NOAA web pages and the NOAA Employee Directory, and by contacting individual program offices. Political appointees were excluded from the population. The Team had difficulty locating lists of FMC Managers across LOs because such lists were not collected in a consistent manner by all groups, or at all. Consequently, the population of FMC Managers was based on a list of the highest pay grade managers at NOAA, which was compiled by NOAA’s Budget Office, and further refined using the personal knowledge of the Team Co-Chairs.

Because the total number of NOAA senior-level officials was small enough to make data collection analysis manageable under the time constraints, the Team opted to solicit feedback from the entire population rather than undertake a sampling strategy within this group. The Team deemed this option preferable because the goal was to include the views of as many people as possible among those most closely engaged in PPBES.

Each person representing the position categories listed above received one questionnaire. Note, however, that one person might have represented more than one position category. In these cases, potential respondents were sent only one questionnaire, but asked to consider the questions based on all of their roles related to NOAA's PPBES. In total, the evaluation team dispatched a questionnaire to 138 Federal employees.

The evaluation team sent a questionnaire via email attachment as a Microsoft Word document. In an attempt to increase our response rate, reminder emails were issued. The questionnaires were issued and due as indicated below:

Dispatched	Group	Reminder Emails	Date Due
26 June 08	Non-FMC officials	7 July 08, 10 July 08	11 July 08
30 June 08	Deputy AAs		11 July 08
10 July 08	FMC Manager	17 July 08	18 July 08

Although questionnaires were due on 11 July 2008 and 18 July 2008, we accepted all responses from all groups if they were received by the close of business on 21 July 2008.

Design of the Questionnaire

Limited access to the technology and software necessary to conduct a quantitative survey in the time allotted for this review curtailed the type of survey the Team could implement effectively. Rather than undertake a quantitative assessment, the Team opted to administer a brief, open-ended questionnaire. This style of questionnaire was deemed advantageous because the use of open-ended questions provided respondents with greater flexibility to highlight the issues most salient to them. Thus, this approach facilitated a more exploratory assessment of NOAA PPBES, which was beneficial because the breadth of issues was more effectively captured using this approach. However, this approach was not effective at identifying the depth of issues identified, as it did not allow the Team to draw conclusions with confidence about relative importance of the problems or solutions identified by respondents. Another potential weakness of the questionnaire is that it relied upon what the Team believed to be generally understood budgetary and financial management terms (e.g., "opportunity cost"), which may not have been understood similarly by all respondents. This could have led to multiple definitions of the same term.

Through the questionnaire, the Team collected basic demographic information relevant to the respondent's experience with programming, planning, and budgeting at NOAA. In addition, the review team posed four open-ended questions to solicit the respondents' beliefs about PPBES and their ideas about how to improve it. These four broad questions were taken directly from the

“Charge for PPBES Review,” provided earlier, and refined with sub-questions relevant to both the “Charge for PPBES Review” and the 2002 NOAA PRT Report.

In the email accompanying the questionnaire (Appendix 3), respondents were provided background on NOAA PPBES and general instruction on the type of feedback the evaluation Team was seeking. Respondents were asked to answer the questions “based on [their] vantage point(s) in the organization and in relation to [their] role(s) in PPBES.” Moreover, respondents were encouraged to consider all aspects of NOAA’s organizational structure and bureaucracy, which may or may not be directly related to PPBES:

As implemented at NOAA, PPBES has become synonymous with other recommendations of the PRT, including matrix management, specific mission goals, the roles of councils, etc. Strictly speaking, these factors are not components of PPBES or other performance-based budgeting and management systems in their theoretical forms. However, we encourage you to consider PPBES as it is implemented at NOAA, which includes the ancillary management reforms initiated after the 2002 PRT and those that have since evolved within NOAA’s PPBES framework.

Finally, respondents were invited to write as much as they wished in response to the open-ended questions and encouraged to provide examples, anecdotal evidence, and/or data to support their comments and insights.

It is important to note two weaknesses related to the timing and administration of this questionnaire. Related to timing, the review was conducted during the summer months when many individuals were likely to be on leave. We received ‘out of office’ replies during each wave of dispatch. Additionally, FMC Managers were given only 11 business days to complete and return the questionnaire, while all other groups had only 18 business days to do so. Conducting the review at a different time of year or, alternatively, allowing more time to complete the study, would likely have increased the participation rate. Regarding the use of email as a means to administer the questionnaire, the Team cannot be certain that emails reached their intended recipients or that respondent replies reached us. Because of time constraints and limited staff, little follow-up with potential respondents was possible.

Out of 138 questionnaires issued, we received 60 responses by 21 July 2008, giving us a response rate of 43.5 percent ($60/138 * 100$) for solicited, on-time questionnaires. We received four late questionnaires, meaning that these responses were received after the close of the business day on 21 July 2008. Given the nature of the data analysis, limitations in technology and staff, and the short period allotted for the review itself, it was not possible to formally include late responses in the data analysis. However, analysts coded the questionnaires to determine if respondents raised issues that were significantly different from those already analyzed. The late questionnaires did not contain unique insights or issues; they were consistent with the analysis based on the 60 responses received within the deadline.

While the response rate from individual respondents was 43.5 percent, the response rates per position category were higher for some groups and lower for others, as indicated in Table 3. This is because position categories were not mutually exclusive. In other words, one respondent could have held two or more positions simultaneously. Although we only sent one questionnaire to each individual regardless of the number of positions they held, we considered respondents as representative of all positions that they held at the time of the review and asked them to respond accordingly. Taking account of multiple positions held by some persons, the response rate was 50 percent or higher for six of the position categories.

Table 3: Frequencies and Response Rates by Position Categories

Position Category	Number Solicited	Number Responding	% Responding per Position Category
AA	7	3	42.86
DAA	5	4	80.00
CFO	5	4	80.00
CC	7	4	57.14
GTL	8	4	50.00
PM	41	30	73.17
RTL	9	6	66.67
SOD	11	2	18.18
FMC*	61	20	32.79
Total	154	77	

Notes: Position categories are not mutually exclusive. *Includes the four late questionnaires.

In terms of possible response bias, the Team acknowledges that this is a possibility given our methods and response rate. As with any inquiry that does not rely on probability sampling or produce a high response rate, bias can be introduced into the study if persons who did not respond to the questionnaire differed systematically from those who did respond. For this study, the question is: were non-responders a particular type of person or group so that bias was systematically introduced into the study? Proportionally, there was a lower response rate for SODs (18.18%) and FMC Managers (32.79%), most of whom do not serve PPBES in any other capacity. However, in terms of frequencies by position category, SODs and FMCs comprised 46.75 percent of the total number of persons responding per position category. Without further investigation of differences in responses per position category or investigation into the characteristics of non-responders, the Team is unable to report definitively if or how our response rate affected the findings.

Unsolicited Questionnaires

Once the questionnaire was issued to senior-level NOAA officials, several individuals who were not included in the above-mentioned groups approached members of the evaluation team requesting permission to complete the questionnaire. Because the evaluation team wanted to be as responsive as possible to all people in NOAA with a perceived stake in the PPBES review, we agreed to receive these unsolicited surveys. A total of 15 unsolicited questionnaires were submitted.

However, in order to retain as much rigor in our methods as possible, the Team opted not to include these unsolicited questionnaires with the PPBES Senior Level Feedback or the FMC Manager population responses. To guard against the introduction of bias, unsolicited responses were designated Tier 2 Data and kept separate from officially-solicited questionnaires.

The reason for this protocol was two-fold. First, the unsolicited questionnaires were passively collected, meaning that they were not gathered in an intentional or systematic manner by the review team. This means that not everyone in NOAA (at levels other than those intentionally surveyed) had the same opportunity to provide comments via the questionnaire. Rather, unsolicited respondents were self-selected or referred based on networks of interest/influence. Consequently, findings based on Tier 2 Data could be subject to bias and create issues of reliability.

A second, more pragmatic consideration for this protocol related to the severe time constraints imposed for completion of the review and the limited number of staff providing labor for project management, administrative activities, and data collection and analysis. The evaluation team agreed that the Tier 2 Data would be formally coded and analyzed for anecdotal purposes only if time permitted.

These questionnaires were coded and, similar to late responses, examined to check for unique or novel perspectives. The analysts concluded that the issues highlighted in the unsolicited responses were similar to those gleaned from the solicited surveys. However, in many cases, the emotional tone of these responses was more intense and negative. This difference in tone could be associated with the lower levels wherein these staff persons engage in the PPBES process. We emphasize that our evaluation approach was not effective at capturing the experience of persons working at the very lowest levels in PPBES, including contractor staff, and that this should be considered in future assessments.

Data Management and Analysis

As the Team received the completed questionnaires, it uploaded the documents into a PPBES Review Project folder located on NOAA's CasaNOSA site for centralized storage and access by review team members.

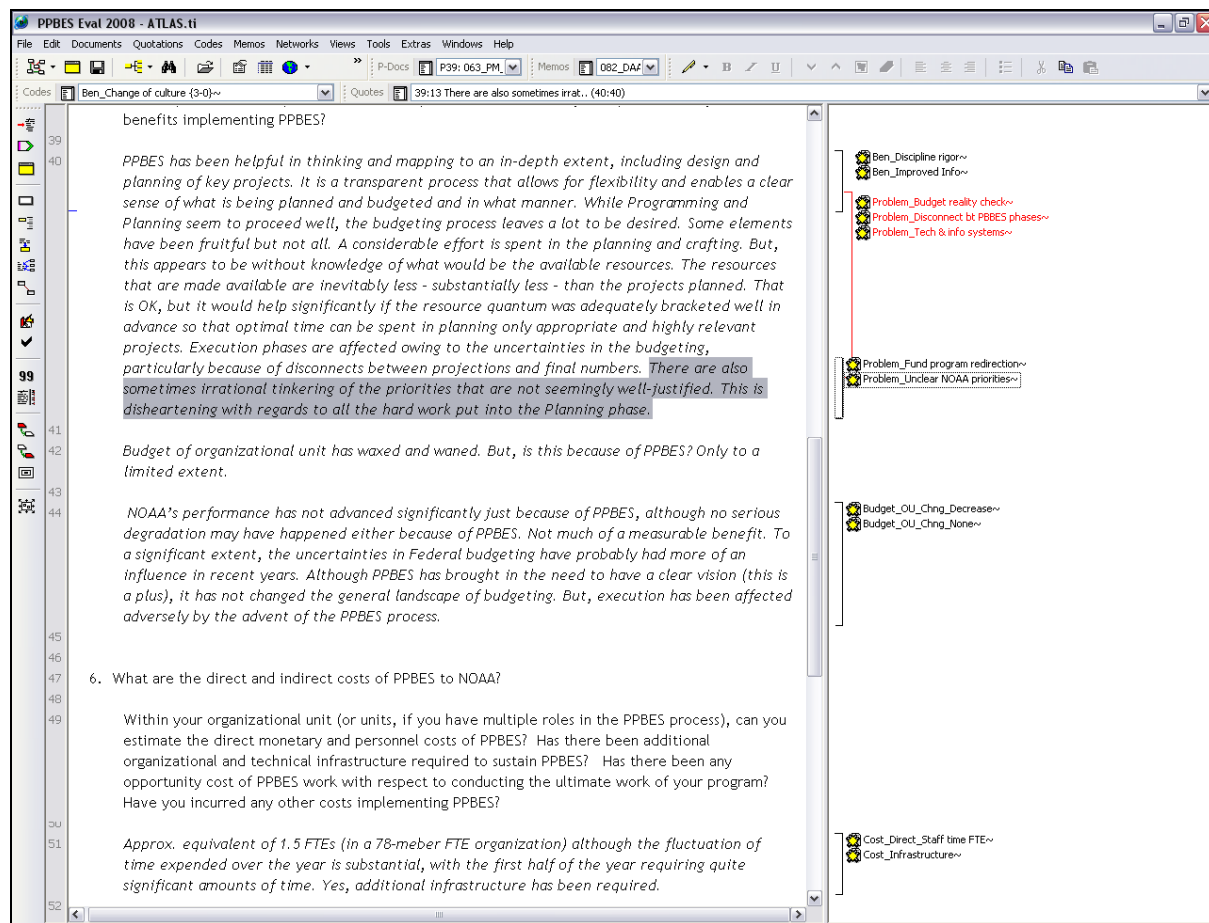
Subsequently, the documents were downloaded by research staff to a desktop computer and converted into rich text file format. At this time, the completed questionnaires were logged and

assigned a unique identifier. Each questionnaire constituted one document or record for purposes of analysis. In other words, the unit of analysis was the individual.

Completed questionnaires were analyzed using Atlas.ti - a qualitative data analysis software package typically used for analysis of narrative or textual data. Atlas.ti allows the researcher to categorize text under themes or, used hereafter, codes. In Atlas.ti, each of the documents was coded, so that the narrative content of each document was assigned to a particular analytic code or codes.

The research analysts relied on both deductive and inductive analysis when coding data. Some of the codes employed were defined prior to the start of analysis based on the questions in the questionnaire and relevant documents, such as the 2002 NOAA PRT report. However, as coding progressed the researchers refined these codes, added new codes, or deleted irrelevant codes as implicated from the data itself. This grounded manner of coding allowed the researchers to capture all issues being presented by the respondents, even if the Team did not anticipate such issues. Thus, the Team let respondents define the benefits, problems, and solutions related to NOAA PPBES.

Figure 3: Example of Coding in Atlas.ti



Once codes were created in Atlas.ti, the researchers then attached quotations from the text to a particular code or codes. The researchers then organized and analyzed the data by examining the groups of quotations attached to each code. In some cases, families of similar codes were created and analyzed. An example of coding as accomplished in Atlas.ti is provided in Figure 3 above.

This type of analysis provides an overview of the breadth of issues reported by respondents. However, it does not allow the researcher to quantify the findings in a meaningful way.

Questionnaire Results

Summary of Benefits

Benefit: Communication and Coordination

One reported benefit of the PPBES process was the increased interaction and improved communication, integration, and coordination of different organizational units within NOAA. PPBES, in combination with matrix management, requires units to work across programs and LOs on program planning and goals. Thus, PPBES has ignited cultural change in NOAA from the competitive, “stove piped” structure of the past to a more collaborative and cooperative organizational environment. This cross-pollination benefits units and their staffs.

Since implementation of PPBES, the various units are more likely to collaborate on joint programs and projects. This has resulted in greater maximization/coordination of capabilities, less duplication of effort, and empowerment of smaller, less well-resourced programs.

The PPBES process has also resulted in the creation of many valuable informational products and exercises that were not available prior to its adoption. These products and exercises foster a greater understanding among PPBES participants about their own programs, other programs, and corporate NOAA more generally. This information leads to more informed and effective decisionmaking and communication.

The products and outcomes of PPBES have enabled NOAA to communicate better with external parties about its mission and how its budgetary requirements directly relate to this mission. The import of this improved communication is increased visibility for the agency and increased support from the external entities.

Representative Quotations:

The major benefit is as a forum to bring various LOs together where they share common interests. There are a number of important opportunities to link programs more directly and this has been one of the very successful results of NOAA's PPBES system.

The only benefit that I have seen from PPBES is better integration of NOAA programs and cross talk between component offices. This is an important accomplishment, but perhaps could have been obtained in other, less costly, ways.

However, one benefit is that working on PPBES generally is a positive opportunity for junior staff to broaden their scope. It is a very good training opportunity for many of them.

In my opinion, the single greatest improvement resulting in part from PPBES is NOAA's ability to articulate its programs and the benefits of its science to the public, congress, DOC, and OMB. Coupled with increasing national interest in environmental issues, NOAA has improved its visibility as an important federal agency.

PPBES provides a structure for developing the business-case materials to include analysis, alternative assessment and recommendations for implementing initiatives or acquiring new capabilities to meet NOAA mission requirements. The quality of position papers, studies and other artifacts have improved with OMAO. I have seen

variations on similar systems that have the same or similar success, but have not required the same level of rigorous analysis. However, I concur with the need for rigor and some of the expectations.

Benefit: Positive Change in Culture

PPBES has led to a change of culture within NOAA related to planning. Respondents indicated that there is now more openness among unit leaders relative to their budgets and execution. There is also more collegiality, cooperation, and communication among the different units.

PPBES has also brought to NOAA more discipline and rigor to planning and programming. This discipline and rigor does three things:

- It helps NOAA define more clearly its own priorities and contemplate how these priorities, and the resulting plans and programs, relate to its missions;
- The adherence to disciplined and rigorous process in programming and planning helps create a unified, coherent message understood by internal NOAA and deliverable to outside stakeholders, such as Congress, OMB, and DOC; and
- Though perhaps not completely achieved, this intentional planning process has led to more clarity and transparency related to how NOAA sets priorities and makes funding decisions. The outcome of this intentional planning process is more results-based planning directly related to NOAA's strategic plan and missions.

While the process may not yet be efficient or effective throughout, respondents felt that it was still more methodical than the old system. Planning and programming are now better linked to requirements and this helps assess and allocate resources.

Representative Quotations:

Quite frankly, prior to PPBES, budgets could be closely held secrets within an FMC. This is no longer the case. It has contributed much to answer the questions of where the money goes and whether we should change our spending habits in the future.

As a Program Manager... I have not seen significant benefits to my very small Program. However, I think it is useful to NOAA as an organization because it seems to be bringing some credibility with external stakeholders and more transparency internally to NOAA's budget processes. PPBES also seems to help NOAA's top leadership establish priorities and make some hard choices.

In my opinion, the biggest gain was the Planning phase. Now there is a common and consistent way that all NOAA Programs document their needs and request new resources. Programs have also taken a closer look at their legal mandates and other requirements and now have a much better picture of how effective they are in implementing such mandates with available resources. The use of Matrix management has also allowed for much better utilization of the appropriate NOAA-wide resources to achieve specific, common outcomes.

Benefit: Improved Efficiency

PPBES has resulted in greater efficiencies in some areas. For example, the planning and programming activities have enabled PMs to allocate limited resources more efficiently. Another respondent commented on the elimination of duplicative programming through better coordination among NOAA organizational units.

Opinions among respondents related to whether PPBES had improved NOAA's performance generated a variety of responses. While some respondents were uncertain as to what was meant by "performance," others suggested that NOAA's performance had improved in terms of budget and management since the adoption of PPBES. Evidence of this improvement was linked to increased or stable funding or other budgetary outcomes, such as improved planning and communication. Other respondents argued that NOAA's performance had not improved with the advent of PPBES, or that improvements made were not a result of PPBES.

No respondents indicated that PPBES improved its performance relative to its core missions.

Representative Quotations:

PPBES has required our staff office to examine priorities and efficiencies, develop justifications, and develop strategies for reordering priorities where necessary to accomplish the mission within a constrained budget. This has been beneficial.

As Program Manager, the benefits realized are the enhanced awareness and coordination among different components of the matrix program and among NOAA Programs. This is leading to some efficiencies (for example, marine debris grants being administered by the Restoration Center, rather than creating a parallel capability in NOS).

Performance improvement? Not clear. NOAA itself is more disciplined and somewhat able to tell a more strategic story. The proliferation of programs below the goal level is high and in sum nearly impossible for any manager seeking to get a bird's eye view on NOAA to track.

Budget Increases

Respondents did not always specify whether changes to budgets were changes to the NOAA Program, to DOC or OMB submittals, or to final appropriations, though where ambiguous, the Team understood this to mean changes to final appropriations. Respondents offered possible budgetary increases as benefits of the PPBES, but these comments were often qualified with the belief that the benefit was not a consequence of PPBES, that it was not clear if the benefit resulted from PPBES, or that only some part of the benefit could be credited to PPBES. Respondents who offered this type of caveat did so in the context of reporting budgetary increases in their organizational unit during the past several years.

The most important conclusion for this finding is that budgetary increases or decreases may not be a valid measure of the efficacy or successful performance of PPBES. Although not mentioned explicitly by any of the respondents, it stands to reason that claims related to decreases in budget may also not be valid measures of PPBES's value. The linkages between PPBES and the increase or decrease in a NOAA unit's budget are, therefore, nebulous and should be regarded with caution when drawing conclusions about the value and efficacy of PPBES.

In some cases, respondents indicated that data were not presently available to assess the failure or effectiveness of PPBES, which is a problem with the system. The connections of budgetary changes to PPBES within units may be an area for closer study, particularly in light of claims

about the significant cost of PPBES. In addition, the assumptions and expectations of PPBES as implemented in NOAA may also be explored more carefully.

Table 4 (below) summarizes respondents' assessment of a budget change for their organizational unit and relationship of change to PPBES:

Table 4: Respondent's Assessment Regarding their Unit Budget Change Since PPBES

Staff Type*	Total Number of Responses	Number of Responses to this Question	Budget Increase	Budget Decrease	Budget No Change	Change due to PPBES?				
						Yes	No	Partially	Unclear	Not Provided
Program Manager	23	13	11	2	0	0	7	2	0	4
CFO	4	3	3	0	0	0	2	0	1	0
Council Chair	4	2	2	0	0	0	0	0	1	1
DAA	4	3	1	1	1	0	1	1	0	1
FMC	16	10	7	3	0	1	3	0	0	6
GTL	4	2	1	0	0	1	0	0	0	1
RTL	6	3	2	0	1	0	1	0	0	2
SOD	2	2	1	1	0	2	0	0	0	0
AA	3	2	2	0	0	0	0	0	1	1
Total	66	40	30	7	2	4	14	2	3	16

*Please note that categories are *not* mutually exclusive, meaning that some respondents fit into two staff type categories.

Representative Quotations:

FMP has seen its budget increase under PPBES. However, the primary drivers for those increases have not been related to the internal PPBES process, but rather external factors like the President's Ocean Action Plan (providing strong support for Dedicated Access fishery management programs) and enactment of the Magnuson-Stevens Reauthorization Act of 2007. Where we have aligned program alternatives with these external drivers, we have had success getting them through the system - but it is unclear that PPBES has added much value to that - in other words, we were likely to receive funding for them anyway.

Some of NOAA's success in increasing funding levels is likely tied to an improvement in our ability to articulate funding needs and performance results. However, one of the flaws of the PPBES systems is that it does not track whether budget increases are a direct result of the process. It is unclear whether the PPBES process resulted in funding increases that we would not have received without PPBES. NMFS' President's Budget request has increased by about \$50M between FY2004 and FY2009, but enacted funding has increased by even more (~\$68M

between FY2004 and FY2008), but I don't think all of those increases can be directly attributed to the PPBES process. For example, some funding increases are related to Congressional response to new requirements and priorities that developed separate from the PPBES process and for which the PPBES process operates on too much of a delay to address in a timely manner (e.g., new legislative requirements such as the reauthorized Magnuson Act). In those cases, Congress acts, and then NOAA struggles to align PPBES budget numbers with enacted budgets.

Summary of Problems

Problem: Analytic Complexity

A major problem with PPBES stems from the actual, on-the-ground running of the system. Respondents used a number of words and phrases to describe PPBES at NOAA: cumbersome, confusing, complex, non-intuitive, duplicative, redundant, justification to death, process heavy, resource-intensive, labor-intensive, esoteric, time-consuming, unnecessary, painful, inefficient, counterproductive, frustrating, chaotic, out of control, constant struggle, inflexible, make work, unwieldy, intrusive, oppressive, run amok, and a waste of time.

The major source of complexity identified by respondents was the incongruity of the budgeting philosophy of PPBES with the “reality” of budgeting for appropriations, that is, comprehensive budgeting toward a desired end-state rather than incremental budgeting from a presumed base. Respondents were generally concerned that PPBES ignores this budget reality. This was expressed, basically, in two ways.

First, respondents indicated that the lack of consideration of funding limitations in the planning and programming phase led to difficulties in the budgeting and execution phase. The question is where does one start for the planning and programming phases - with appropriated funds (i.e., congressional appropriation) or proposed funds (i.e., the President's Budget). The perception was that by not dealing with this issue, PPBES fails to differentiate between a resource-rich versus resource-scarce funding environment, and that this lack of differentiation encourages those responsible for budgeting and execution to spread limited funds to more programs.

A second way this lack of connection to “fiscal reality” was expressed was that PPBES fails to recognize that external forces add or subtract funding to the NOAA budget at will, outside of the NOAA PPBES process. The PPBES process does not incorporate or acknowledge those programs or projects that are congressionally-earmarked or added by OMB. This creates bureaucratic difficulties within PPBES for PMs and LOs.

Respondents indicated that data calls or requests for information, which might come during any phase of the process, required a great deal of work to put together from which the organizational unit saw very little return for their effort. Respondents described data calls and requests as duplicative. In other words, units are receiving multiple requests for the same or similar information, although requesters might ask for similar data to be packaged differently. Respondents expressed the view that many data requests were ill-conceived (thereby creating confusion) or unnecessary. There was a sense, first, that data calls are too commonly used and, second, that the effort required to feed data and information into NOAA PPBES did not result in

tangible gains. Moreover, respondents indicated that diverting staff time to respond to data calls and requests meant that other important NOAA business would not be done in a timely manner.

Representative Quotations:

The entire process always seems to be chaotic and on the verge of out of control, which is not what you'd expect from a deliberate, strategic planning-based process. Program staff are continually providing the same information in multiple forms to multiple people, and it often seems that concern about "the process" takes priority over concern about the content of what we're doing.

It seems to me that the extensive numbers of meetings, exercises and tasks that are generated by the PPBES process are cumbersome and have become "bureaucratic" in nature to some degree. The point here is that as each program works to respond to drivers that are created, the many plans generated by the PPBES process are often too cumbersome, slow to develop through the Goal Team and unresponsive to more immediate needs. You simply cannot change what is in PPBES fast enough to adjust to requirement changes.

The budget office has been given the role of bringing back to "reality" a process that has spent nearly ¾ of the fiscal year planning and programming without fiscal limitations. One of the results is NOAA spreads its wealth too thin in an attempt to satisfy the requirements of many initiatives competing for scarce resources.

However, the planning horizon seems to incorporate unrealistic assumptions about how the NOAA budget will be treated by Congress. More emphasis should be placed on Congressional directives. Further, more reliance on past appropriations should be incorporated into the planning process. The goal should be to have adequate planning at a minimal cost, as planning costs are in direct competition with operational costs.

One issue - which I believe to be related to PPBES - is the number of councils and committees under NOAA which we are responsible for feeding information to and the related data calls (education surveys, research surveys, CORL, NOSA, etc.). This takes up an incredible amount of time, detracts from the important work people should be doing, and it doesn't appear to lead to anything tangible. It has become such an issue that some of our offices (within the LO HQ) have had to adapt by redistributing duties/personnel to cover this "make work" that is all internally generated. One of the goals of PPBES was to make management more visible. In terms of supporting all of these councils and committees - that has happened - but the impact couldn't be more negative.

We compile endless lists and documents that few if any read. We are working much harder, but not much wiser.

There are data calls that could be forsaken with no loss whatsoever.

Yes, there have been significant costs associated with frequent responses to calls for data and analysis. While the effort to objectively and collectively determine priorities, capabilities, gaps, resources alternatives, and measuring performance is fundamental to operation of a program, the PPBES has missed the opportunity to do so in a meaningful manner with its imposition an overlay complex process of redundant pseudo analyses and evaluations coupled with a top down opaque decision making process that frustrates day-to-day program personnel. They see the process as intrusive and oppressive with little benefit for meaningful participation. Instead it is interpreted as a process of "feeding the NOAA beast."

Problem: Disconnected, Ineffective Phasing

Respondents commented about the disconnect between entities engaged in the PPBES and pointed to disconnects in the process itself. From the respondents' perspective, disconnects in the PPBES process leads to confusion, excessive/duplicate work, and a lack of synergy throughout the process, resulting in an inefficient and ineffective process.

Respondents identified the budgeting and execution phases as the most subject to process breakdown. Very broadly, there was a general sentiment that the budgeting and execution phases are detached from the planning and programming phases. In terms of budgeting, there appears to be a sense of perplexity about the inputs and outputs of this process. According to respondents, changes made to priorities in this phase are frequently not linked logically to the priorities defined during planning and programming.

Related to execution, there appears to be a gulf between what is planned and programmed and what is ultimately executed in the LOs. The disconnect stems from the unlinked and often competing structures of matrix programs versus the LOs. Information systems and tracking seem to be important issues for people concerned about execution. The tracking of capabilities or performance measures by dollars is extremely difficult and possibly not appropriate.

Respondents identified planning as a phase with noticeable breakdowns. It was noted that those responsible for planning and programming have decreasing involvement in the budgeting and execution phases of PPBES, although accountability is still required. One consequence of this is that priorities might look very different coming out of the PPBES process as opposed to when they entered. Another result is that tracking projects from end to end is not very easy, if possible at all.

Respondents indicated that NOAA had not yet achieved strategic planning in a way that was very useful or, alternatively, that PPBES does not connect well with the Strategic Plan. The five points raised about the Strategic Plan were:

- The Strategic Plan is too vague and general to be very useful;
- Strategic planning has not led to a true integration of NOAA from an organizational standpoint;
- The NOAA Strategic Plan needs to more effectively target national needs;
- PPBES does not effectively link NOAA's strategic goals to planning; and
- PPBES does effectively focus effort on the most important initiative, strategically speaking.

Respondents reported inadequacies and inconsistencies of data and information systems across the phases, such as the Program Operating Plan (POP), Annual Operating Plan (AOP), quad charts, and the Program Information Reporting System (PIRS). Alternatively, respondents suggested that the proper data is not used or available in the process. For example, planning is conducted without knowledge of expected resources or relying on "unrealistic" current funding levels, both of which lead to unrealistic planning in turn.

Respondents also indicated two issues related to timing. First, the products and/or activities within or between phases are often not timed in a way that allows for maximum information to be available or for meaningful participation. For example, a report or data needed for planning may not be released until after critical planning deadlines are enforced. Alternatively, unreasonably short turnaround on requests for input or information mean that information may

be inadequate, incomplete, or missed altogether. A second aspect of the time/timing issue is that the cycles of PPBES may not be amenable to making critical connections in the process.

Related to the movements from phase-to-phase activities is the general lack of flexibility in PPBES. Respondents noted that PPBES is not flexible enough to allow units or even NOAA to adapt readily to internal or external factors/changes. The lack of flexibility results in non-responsiveness to rapidly emerging issues/drivers/mandates, missed opportunities, inability to adapt to actual context of operations, and penalties for not following the prepared plan, even though circumstances have changed. Respondents indicated that it does not give LOs the ability to deal with “reactive operational environments” and it hinders NOAA from engaging in external, collaborative partnerships.

Representative Quotations:

PPBES seems to have been fully implemented organizationally (establishment of Goal Teams, Program Managers, PPI, PA&E, etc). However, functionally I don't think it has been fully implemented as PPBES seems to be viewed primarily as a formulation process instead of a full system that includes execution. It has successfully put more emphasis on strategic planning, identifying program priorities (both within and across line offices), and the development of rigorous defendable budget requests. It doesn't seem to have the same close connection to execution or evaluating appropriation or program success related directly to PPBES. For these reasons, I don't think it has realized the full expected benefits of a comprehensive end-to-end system.

The need for good planning and programming is clear. The benefits are there if we can ensure the results of the programming phase are the basis for the budgeting phase. The biggest concern I have is that the budget process often makes significant changes to the programming process. This creates a sense among those doing the difficult planning and programming work that their efforts are not valued as the budget process often changes the programming results. The disconnect is most obvious where the financial data base of the programming phase (PIRS) doesn't seem to evolve into the budgeting financial data base. In other words, it seems that the budgeting phase doesn't start with the PIRS data base and structure “decisions” as deviations from that point. Rather, the budgeting phase seems to start from the previous year's appropriation. I have known people to not work within the planning and programming phase as they know they can raise their issues in the budgeting phase and get the issues dealt with. In fact, energy spent there is most likely to be rewarded with budget increases.

Another major failure is in execution. Program managers develop the budgets and there is a large disconnect between developing budgets, reporting progress, and actual execution (especially when it crosses Line Offices, but sometimes even when in the same LO) It remains disappointing that the E2E budget profiles do not reflect reality and changes are exceptionally difficult to make and limited to only a very few “on ramps”.

Most importantly, I think the process fails to implement true strategic planning. The strategic goals of the agency should not change greatly from year to year. The EGT should have a set of key strategic goals and performance measures that would be used to guide the programs in doing their planning to meet those goals. Program POPs would focus on the program contributions to these strategic goals, and alternatives would be integrated -- not along a theme line like “ocean governance” or “climate change” -- but around achievement of one or more strategic goals, with the optimum mix of contributions from multiple programs to advance NOAA toward meeting the goal most effectively given the resources available that year. We would advance from year to year in a consistent way toward those goals. By the time we finished programming for one year, we would already know our starting point for the next step in achieving the strategic objective.

Major pieces of the PPBES puzzle don't fit together. Starting with the AGM that is released after the planning phase is underway, the timing of the Annual Stakeholders Meeting, PIRS and its problems, both in regard to timeliness and accuracy. The timing of the DOC passback and the POP deadlines are also a problem... in 2007

POPs were due for FY10-14 before the DOC passback for FY09 was received. This does not provide an immediate opportunity to use the FY10-14 planning documents to redress any DOC cuts made in the FY09 passback. One would think that a successful planning effort would be coordinated such that the likelihood of success would be better ensured...NOAA seems to be more concerned with getting the process done on some schedule rather than ensuring success.

PPBES is not very nimble or flexible to changing circumstances. Science (perhaps more so than some other NOAA efforts) is ever-changing with new information on a daily basis. We may find that a new piece of scientific information (expected or unexpected, internal or external) dramatically changes the work we need to do. For example, in just the last year we have learned about the critical significance of ocean acidification on fisheries productivity and species distributions. Science is both responsive to policy and can change policy but unfortunately there is not always a predictable of drivers.

Problem: Poor Communication

Respondents commented on the disconnect between different units within NOAA that make PPBES less effective. These disconnects, however, may or may not be directly related to the PPBES process. Respondents argued that the LO structure is incompatible with PPBES and matrix management as implemented in NOAA, which one person indicated is not "true matrix management." The LOs do not participate in planning and programming, which are each done by different entities, yet they are left to execute.

In general, the perception is that there is a lack of effective coordination between all of the units involved in the PPBES process: PPI, the Office of Program Analysis and Evaluation (PA&E), Goal Teams (GTs), Programs, and the LOs. Communication across these units is difficult because the same "language" is not always used or the same issues prioritized. Moreover, there is no accountability to others in the process, which means that there is no motivation for these units to improve working relationships and increase compatibility and responsiveness to each other. Rather, there has developed an unproductive competition between units, resulting in politicking, power posturing, and struggles over turf and control.

The various disconnects between entities, as reported by respondents, are:

- Disconnect within LOs noted by a lack of integration and problems related to communication,
- Disconnect between the planning programs (GTs and Programs) and the execution branch (LOs),
- Disconnect between NOAA PPEBES units in Headquarters and Regional Teams/field offices,
- Disconnect between GTs/Programs and the units they represent,
- Disconnect between Corporate NOAA and units, and
- Disconnect between NOAA Budget (budgeting) and Programs and GTs (planning and programming).

These disconnects make integration difficult, make reconciling near-term and long-term priorities difficult as programs are not carried forward by lines into execution, exclude input

from some units, cause frustration and disenchantment, make PPBES inefficient and ineffectual, and create extra or repeat work for others.

Representative Quotations:

As it is now being implemented, it appears to be very top down and driven within the beltway and by HQ. The opportunities for input from the field seem to be improving and especially within the Ecosystem Goal. I suspect this is a result of our becoming more familiar with the process and more assertive in insisting we be included. However, the engagement from the field needs to be formalized within the process. Of course, this may mean more process rather than less and since I'm not intimate with the overall process, not sure where this might best fit without added burden. I get the idea that folks in HQ would like more field input but the process is such that deadlines come quickly and there is limited time for this input. When we offer it, it seems to be very much appreciated.

NOAA's organizational structure (LOs) does not seem consistent with PPBES. There are theoretical connections for LOs to contribute to the early phases of PPBES, but from a practical view, my sense is one group does the planning, another programming, while another is expected to perform the execution. Since the execution group does not seem to have ownership of the programs, I think we have become confusingly matrixed. Our culture of seeking consensus then leads to no one being truly accountable and always having someone else to point to, should something go awry...

There still remains a major disconnect between Execution programs (Program Offices) and Planning programs (PPBES programs), making true integration very difficult. Essentially, we need to negotiate separately with different people to develop working relationships on a particular issue - one with the Program Office Director to cover near term actions, and the other with the PPBES Program Manager to take these into the future. They don't always agree. The Coastal Integration effort is an example, where the integration effort at the Program Office level is not carried forward into the PPBES programs.

It appears from a Program perspective that there is a lack of effective coordination among the major players in PPBES, i.e., PPI, PA&E, Goal Teams, NOAA MB, and the LOs in general; where there may be some "official" coordination, there still seems to be a practical disconnect among them in many ways. For example, final budgeting decisions are not reflected in our Program baseline. This has been repeatedly raised as an issue within NOAA, and could easily be fixed. Failure to fix the problem appears to stem from PA&E failing to accept that budget decisions in the end, trump the programming process. As a result, our planning base is significantly different from our executable budget, which makes planning seem detached from reality. To me, it appears as another data point that the agency components are more concerned about their own turf than in creating an effective corporate process.

Problem: Poor Corporate Decisionmaking

There was general frustration among respondents concerning how decisions (with respect to funding priorities) are informed, made, justified, communicated, and fixed across phases and over time. Two categorical types of decisions that the agency appears to be wrestling with are between what is old and what is new, and between research and operations.

Respondents indicated that PPBES has not been successful at making the hard choices about ending programs. Rather, old programs continue as new ones are developed, which further strains limited resources. Respondents indicated that PPBES as implemented at NOAA was less effective at supporting NOAA's scientific mission and activities, relative to other areas such as operations or acquisition, for example. There is little infusion into the process about the

priorities and recommendations from a scientific perspective, which may result in poor choices among alternatives.

Another frustration was the frequency with which changes are made in latter stages of the PPBES process, such as those related to priorities and budget. These changes often are not accompanied by explanations from those who make them and the logic behind them is not intuitive, thereby confusing people involved in other stages of the process. The effect of these changes, which in some cases seem arbitrary and unilateral to observers, is that participants in the PPBES process feel that their efforts are not valued. Therefore, the perception exists that their participation, in what is viewed as a complicated and burdensome process, is not regarded as worthwhile; efforts in initial stages are not worth the effort because changes are made arbitrarily in later phases.

Respondents complained that decision making within PPBES is too exclusive. Decisions made at the corporate level in NOAA are not inclusive of the NOAA community, lower-level staff, NOAA units, or scientific staff with expertise. Respondents indicated that lack of transparency is a significant problem in PPBES, particularly in the programming and budgeting phases.

In general, frustration was expressed about how decisions are made by those in charge of each phases and how the volumes of data submitted by units was employed to generate decisions. Based on the perspective of respondents, the products that emerge from each of the phases may bear little resemblance to the information inputs, which causes frustration, confusion, and suspicion as people outside of these phases are left to conjecture about how decisions are being made. Specific examples cited by respondents of where transparency is lacking are paraphrased here:

- How fiscal guidance for GTs is generated each year;
- Why the Program Decision Memorandum (PDM) was not shared by NOAA and CFOs during budget phase;
- The procedure that NOAA uses to contrast and decide between various alternatives based on the scientific validity and quality of each option;
- The relationship and substance of information exchange between DOC, OMB, and NOAA PPBES each year;
- How and why NOAA leadership decides to depart from established NOAA priorities in later phases of PPBES;
- How data from all of the data calls are packaged and used by NOAA leadership;
- How PPI and PA&E employ the data requested during the planning and programming (PP) process to decide why to move something forward or not;
- How PPI and PA&E make decisions about what is advanced, particularly in light of the lack of expertise of PPI and PA&E staff in all program areas;
- How NOAA leadership determines the active NOAA priorities each cycle, meaning those advanced inside and outside the agency, and why these priorities are not communicated to all of those working in PPBES;
- How PA&E compares requests based on the importance of the requirements associated with the alternatives;

- How NOAA's Budget Office decides which priorities are accepted and which are not;
- How PPI, PAE and/or NOAA's Budget Office decides on current funding levels and changes from prior years; and
- How budgeting decisions are made.

Respondents indicated that once decisions about NOAA priorities are made, NOAA leadership does not do an effective job of communicating or enforcing them. Priorities are too vague or are abandoned by leadership too readily. In short, respondents feel that NOAA priorities are a moving, if not unseen, target. This circumstance renders the priorities meaningless, and those parts of the PPBES process that depend upon them wasteful of effort, time, and resources.

Below are specific examples of respondent observations:

- NOAA leadership does not define its priorities in advance of planning;
- Corporate priorities are not communicated and, as importantly, enforced throughout the process;
- The Annual Guidance Memorandum (AGM) does not refine priorities, but makes them more broad and vague; and
- PPBES does not clearly rank/prioritize NOAA's priorities, meaning sort them out by higher versus lower priorities.

Representative Quotations:

Further, the agency must be willing to submit to the process and make the identified priorities the priorities and be willing to stop doing other activities. It is just not possible to keep cutting the budgetary "pie" into ever smaller pieces and expect the same work to be done. It would be better to do fewer things right than a partially fund a whole suite of activities, particularly some that may have had relevance at one time but in light of dynamic priorities, should no longer receive funding.

NOAA is a science-based organization, yet repeatedly, I do not see how we organizationally nurture scientific innovation, transition science to operations, and ultimately, value the outputs of our scientific endeavors so that outcomes are readily achievable. To me, these all seem lost within PPBES... For example, within a PPBES framework has NOAA quantitatively and rigorously contrasted the science behind various ocean observing alternatives (e.g., remote sensing vs. in situ), and then based on this analysis prioritized systems (e.g., do we invest our limited resources in another satellite, vessels, AUVs, UAVs, shore-based radars...)? We do not have sufficient funds to do everything, how are we making the hard decisions among systems?

Higher levels of management have placed more weight on the input of stakeholders, partners, or whatever external groups are in vogue now rather than the scientists within NOAA. There have been meetings to solicit external input that is not matched internally.

In general, the documentation/justification requirements for each phase seem excessive and there is often little feedback on why decisions are made and upon what justification or information they're based. An analysis needs to be done on whether the documentation and review required at each phase is necessary to produce a quality product.

There is also sometimes irrational tinkering of the priorities that are not seemingly well-justified. This is disheartening with regards to all the hard work put into the Planning phase.

The real power is in the NOAA budget office. Priorities and decisions in the NOAA Budget Office seem to trump priorities established in Planning and Programming. LO budget offices can also reprogram funds after they have been appropriated. This is extremely frustrating.

The ratio of costs of PPBES to benefits is currently skewed too far towards the costs because agency priorities are not communicated and enforced throughout the process, decisions from programming are not adjusted in budgeting in a transparent manner and current program resources are not adjusted for OMB and President's Budget changes.

The Annual Guidance memo should refine the strategic plan at the annual level - but I can't find any priorities there at all. It says to do everything under the sun (with a flat budget). I learned recently that NOAA actually does have priorities - in some sort of multi-tiered list - but they won't share them with the program managers or line offices. Until that list is released, everyone working in PPBES is throwing darts in the dark.

Problem: Inadequate Workforce

Respondents observed that staffing in the PPBES process is an issue. This observation was expressed in a few ways: there are not enough staff explicitly devoted to PPBES, not all staff that should be included in PPBES are, and dedicated PPBES staffs are sometimes inappropriately qualified to perform their function in the process.

In general, respondents viewed the PPBES process as extremely time and labor intensive and that staff time required to support the process could be better utilized to conduct the agency's mission. Most respondents felt that their responsibilities to plan and program cut into their responsibilities to execute (and vice versa). Because units were not given additional resources to implement PPBES within NOAA, they are required to take it “out of the hide,” so the units themselves must bear the cost of the process from their own budgets. As the labor and technical requirements to feed the system are high, more and more resources have been redirected in units so that they might compete better and see some gains from the process.

The decrease in staff resources available for execution and other NOAA business can be an issue. Fulfillment of urgent PPBES requirements often distracted the “best of the best” staff away from core execution duties. This redirection of resources, however, is especially problematic for units already struggling with budget decreases. PPBES makes it very difficult for these units to deal with inflation and erosion to their base budgets, impeding their ability to meet their charges and missions. Intense labor requirements, combined with attrition to the labor force, creates a situation where employees and contractors must take on PPBES duties in addition to their other full-time task requirements. This “double hatting” of staff, along with the frustrations and vexations of the process, leads to low staff morale, burnout, and rapid turnover in the workplace. One respondent noted the cost of attrition of professionals who have left frustrated by a PPBES process that is foreign to them. This turnover is particularly problematic in a system that has a steep learning curve because that learning process slows the PPBES process down and leads to inefficiencies.

Though respondents were concerned with the cost of “overhead” work beyond executing the core agency mission as a “tax” on their organizational units, many respondents noted the converse problem: a lack of qualified analytical staff in GTs and Programs. Respondents indicated that full-time and specialized staffs are dedicated to the PPBES process at DoD, as

opposed to NOAA's part-time use of "execution people." One respondent observed a decline in second-tier senior executive service representation in the PPBES process, as compared with their numbers when the process began. This has resulted in some managers and participants who do not have the authority to negotiate on behalf of their unit or between units. In some cases, lower level staffs have begun staffing the Programs.

It was also observed that PA&E and PPI lack the requisite number of staff to assess the variety and amount of data being inputted and processed in the system. Respondents indicated that analysts and other staff in the corporate offices may not be qualified to assess all of NOAA's program areas and needs; they often lack the skills needed to communicate data requirements effectively or to produce data collection systems that are relevant to the programs.

Representative Quotations:

There is certainly an opportunity cost which is a distraction from other program work which is not getting done, or program support work independent of the PPBES. Too much process is costing us.

Note, however, that the additional staffing needed to complete PPBES related work has generally come out of hide and more often than not has been additional duties to already overworked staff.

PPBES has forced us to develop effective means or measures to capture the health or quality of our program. This effort has come at a cost because these activities, again distracts the field from its original full-time job.

Typically, the Program related duties of these individuals are treated as additional duties, rather than as part of their normal work load. Thus, these individuals typically work more than 40 hour weeks to cover the responsibilities of both the Program and their home office.

I was asked to assume all the duties of Program Manager without any salary, travel, or infrastructure support. All of the costs associated with my duties, including the salary cost for a coordinator... came originally from the program funds that I controlled. If I want to have a workshop etc. I have to get the members of the program to come up with the money out of their program funds.

In general, operating in the two structures means asking employees to serve two sets of supervisors and routinely doubles the work load of NOAA's best and brightest employees. This often leads to illness, burn out, or poor quality work. None of which are beneficial to the short or long term health and stability of the organization.

The ability of small units like PA&E and PPI to effectively run and critically analyze the results of programs and goal efforts is also overestimated and under-resourced. Given the range of information they must assess, the small number of analysts cannot be expected to be expert enough to be constructively critical.

Are PPI and PA&E analysts really in a better position to make those decisions than NOAA's subject matter experts? They may be in a position to help us articulate needs, set priorities, and understand within-program tradeoffs more clearly, but I question whether either PPI or PA&E has developed the capability to provide an accurate, value added assessment of NOAA's needs in all program areas.

The programming aspect has always been a problem as staff who are ignorant of programs are asked to evaluate their needs and proposals. They need to educate themselves and get the planners (programs, goal teams) and managers (LOs) in the same discussions as evaluations take place.

Problem: Inadequate Information Technology

Respondents generally were dissatisfied with the information systems in place to support PPBES. The fact that there are multiple, disconnected systems (CasaNOSA, PIRS, and budget and execution systems) was critiqued. The most particular concern was with the traceability of items from one system to the next, which results in increased workload by staff to trace and present data manually. Respondents displayed little confidence in the ability of the E2E system to fix the tracking problems that they voiced. The sentiment was also expressed that the filling of fields in databases distracts the agency from realizing the agency's vision through strategic planning.

Respondents were concerned with the timeliness and accuracy of PIRS data, in particular, stating that changes to the NOAA program should be made in "real time" to avoid wasting time. One respondent characterized PIRS as "cumbersome and hard to use." Respondents disagreed with the very concept of tracking dollars by capability, at least as they are currently formulated. One respondent noted that the "least common denominators" in the program structure are not common codes used by LOs. Another stated that we should "eliminate PIRS." Others desired greater availability of the annual crosswalk.

Another concern was that the information systems do not make clear how decisions are made. One respondent commented that the systems do not track whether budget increases are a direct result of the process. Another opined that it does not seem that the NOAA budget frames decisions upon the program within PIRS, but rather on the previous year's appropriation.

Representative Quotations:

We should not be tracking dollars by capabilities - some programs don't execute this way, and it adds unnecessary work with no value to the program. Capabilities were established with a different purpose in mind, and it is tremendously time consuming to change capabilities. It also adds a lot of errors into the tracking of dollars (PIRS, E2E), that causes an extraordinary amount of work to fix. There also doesn't seem to be one entity with overall responsibility for the data, again making errors difficult to track and correct.

The entire process always seems to be chaotic and on the verge of out of control, which is not what you'd expect from a deliberate, strategic planning-based process. Program staff are continually providing the same information in multiple forms to multiple people, and it often seems that concern about "the process" takes priority over concern about the content of what we're doing. CasaNOSA doesn't seem like the system we need, just the best we can cobble together as a repository for the POPs.

NOAA has not invested in developing appropriate support systems. We have CasaNOSA for Planning, PIRS to track programming and certain budget decisions, and separate systems for budget formulation, execution, and performance management. NOAA has started investing in the End-to-End system, but it isn't clear if that will truly integrate all of the PPBES phases. None of these systems are real time, they don't talk to each other, and there have routinely been translation problems between them. As a result, and by necessity, the LOs, Goals, and Programs have each evolved their own way of accounting for and tracking information and translating information between the different PPBES phases.

We should all be using the same baselines, and the baselines should reflect the actual budgets that are outside of NOAA (or being prepared to go outside of NOAA, based on numbers approved by the NOAA Administrator). The prior years should be the budget at DOC, OMB or Congress and any changes from them should be explained as changes from the current levels. The baselines in PIRS should be changed to reflect those budgets whenever they change.

A direct overhead cost borne by NOAA pays for the additional staffing, hardware, and software (CASANOSA) folks required to implement PPBES. Many of these folks are contract employees from Aerospace or Northrup Grunman, and they are not cheap. They communicate well among themselves but not well with the larger NOAA community, as evidenced by spreadsheets showing no comprehension of the differences between satellite and ground-based systems. Perhaps a cost/benefit analysis is in order here.

Problem: Conflicting Authorities and Interests

Respondents indicated that difficulties have arisen in the PPBES process due to NOAA's bifurcated organizational structure, that is, matrix management and the LO structure. This structure is also one of the major factors that respondents attribute to the disconnect between planning/programming and budgeting/execution. For the GTs and Programs, the matrix structure does not allow them complete control and authority. This causes difficulties when it comes to fulfilling those responsibilities for which they are accountable. Because the GTs and Programs do not have a role in the execution phase of PPBES, they are at a disadvantage when trying to report on performance measures and other tracking activities. LOs, on the other hand, have the task of executing plans that they may or may not been involved with developing.

Another dimension to this issue is that, as PPBES has matured, much of the achievement remedying "stove piping" has degraded back to a LO structure. Within the PPBES process, staffs typically wear two "hats," one for the matrix program and one for the LO. However, because the LO has execution authority, respondents assert that loyalties often lie there first. Consequently, many respondents indicated that the GTs, for example, have become more and more closely aligned with particular LOs. LOs begin to "own" programs and exert control over the GTs and Programs to the exclusion of other interests. This outcome is potentially exacerbated for Programs that are made up of many very different programs (small "p") that lack much common ground in terms of mission, priorities, etc.

Representative Quotations:

Goal leads have no role in execution, other than in some cases they are double-hatted with ancillary execution duties. This dislocates the PPBES from the LO execution roles and results in the PMs having no real power in the system. Perhaps this is why we've seen the downscaling of some PMs. If the PMs and the GTs had execution sign off authority then there would be more linking between the LOs, and more support for cross-LO alternatives. As it is, the LOs do not necessarily share the GTs priorities especially for alternatives that carry money going to multiple LOs. I think the Goals need a more direct execution role to be effective.

In the 4 years since the beginning of the PPBES process, it seems to me that the four major goal teams (Climate, W&W, C&T, and Eco-sys) may have been slowly gravitating toward an alignment with four major LOs, i.e., Climate-OAR; W&W-NWS; C&T-NOS, (I don't have enough exposure with the EGT to say if this is the case with NMFS). Perhaps the fact that each Goal Lead reports to one specific AA in their LO is a factor. If this trend is true and continues, I'm concerned that the benefit of PPBES to integrate NOAA programs would diminish some day.

Execution variance tracking and reporting should be the responsibility of the Line Office/Program Office rather than the PPBES Program because execution rests with the Office Director, not the Program Manager. It is particularly problematic when a Congressional budget line is split between programs (Response and Restoration, for example, between Eco/Habitat and C&T/Emergency Response). Expenditures by one Program have often been attributable to the other program, causing errors in the variance reports and creating additional work to track

down. If PPBES Program managers aren't involved in the execution decisions, they should not be accountable to the variances.

Matrix Program Managers used to have more say, influence, and authority in the process and the content. As the system has matured, I believe it has evolved to more closely mimic the Line Office structure than was originally intended. The result is that individual LO's now consider that they "own" the goal and its efforts. As a result, the strategic direction setting, planning, and programming are handled in more of line office specific way than I believe works. The challenge is that we all work within a Line Office and the incentives/dis-incentives are tied to that, and not to the performance of individuals through PPBES. The result is that in the end the things that go forward to the budgeting phase more closely mimic what would have happened in the old system. I think this system could work, but there needs to be consideration given to incentives for working within and through the PPBES system.

It is at the Planning and Programming phases that there have been shortcomings from my perspective. The problems come at multiple levels from different circumstances. Starting with the fact that NOAA is organized by Lines and trying to manage by Goals. There are conflicts of interest and protection of turf that took place and were formalized at the beginning by the Programs selected for each Goal (e.g., Ecosystems Observation Program and Ecosystems Research Program). These do not seem to have been overcome for more structures yet.

Finally, the matrix aspects of the PPBES have created conflicts of interest within and between NOAA's Line Offices. The role of Goal Team Leads, Program Leads, and AA's is not at all clear. In general, I think the matrix approach to management has failed to provide for clear leadership in the execution of NOAA's programs. Specifically, adding the "E" to PPBES was a mistake that should be accounted for in future decision making within NOAA.

Problem: Negative Culture Change

Respondents described a cultural cost related to PPBES as declining or low staff morale and burnout. The cause of low morale and burnout was attributed to one or more of the following factors:

- Inefficient process;
- Cumbersome methods of collecting information that burden staff;
- LO-matrix structure where staff serve two sets of supervisors and have a doubling of workload;
- Lack of return on significant investment of time and energy; and
- Strain on staff and other resources.

These factors disappoint and overwhelm staff working in PPBES. The result is high turnover, meaning that many units cannot keep talented staff engaged or entice others to become engaged in PPBES. In addition, with high turnover, the skill and experience mix needed to participate in PPBES is difficult to achieve.

According to respondents, NOAA PPBES also has a tendency to stifle creativity and innovation, which is problematic for a science agency. In other words, PPBES does not organizationally nurture scientific innovation. Respondents gave the following reasons for this effect:

- PPBES is a heavily bureaucratic process that dampens staff excitement;

- The PPBES process is premised on simplification of ideas to the lowest common denominator and demands compromise among many parties, which has a tendency to neutralize the creativity of new initiatives;
- Alternatives are not coherent; during planning, the responsibility for their composition is parsed out to each LO along mission, and disconnected ideas are vetted up through the various “stove pipes;” and
- Few new ideas are taken seriously in the PPBES process, which dampens the initiative, creativity, and hope of those generating alternatives.

Representative Quotations:

In addition, there is an impact on staff morale given the lack of return on investment, including a feeling among many that the program is not valued within NOAA. The ability to keep talented staff focused on the PPBES process is getting harder and harder.

In my particular unit, while unadjusted dollars have been nearly flat, well crafted new initiatives generated across LOs have not been funded. A key example was the mercury initiative that was modest in scope, involved appropriate specialties from five line offices, and was supported by Clean Air Act Amendment legislation. The initiative died with hardly a whimper. Nobody involved with that initiative has any intention of putting that level of effort into development of another initiative program anytime soon.

For the first question, I think it is imperative that NOAA consider whether the overall tax on the organization that comes from operating in both a LO and PPBES structure is worth the benefits. In general, operating in the two structures means asking employees to serve two sets of supervisors and routinely doubles the work load of NOAA's best and brightest employees. This often leads to illness, burn out, or poor quality work. None of which are beneficial to the short or long term health and stability of the organization.

NOAA is a science-based organization, yet repeatedly, I do not see how we organizationally nurture scientific innovation, transition science to operations, and ultimately, value the outputs of our scientific endeavors so that outcomes are readily achievable.

The main outcome of PPBES is a proliferation of “nice to do” projects. They haven't been well-evaluated to see if we “should do” or “can do” them in most cases; yet they all seem to require new money. Very few of these ideas are taken seriously, because there really is no new significant money in NOAA. This frustrates people and dampens their initiative, creativity, and hope.

Summary of Solutions

Solution: More Resources

Respondents were concerned that the PPBES process itself was neither adequately nor appropriately resourced. Most of these comments dealt specifically with human resources, though some dealt with funding for information technology systems. The clearest call among respondents was for dedicated PPBES staff in order to solve the twin problems of burdening execution staff with PPBES duties and, consequently, program-analytical work that is generally unskilled.

Representative Quotations:

Full-time PPBES personnel are needed to make this work well. It may work well at DOD who has orders of magnitude more resources to work through the PPBES process, but it doesn't appear to work well at NOAA. Using the "Execution" people part time is burdensome and in many cases hinders execution.

NOAA should bite the bullet to create a full time professional staff devoted to matrix management and, as part of their job, to do PPBES.

We cannot afford to keep our highly productive scientists diverted to PPBES.

Clearly, to perform PPBES properly, the process needs to be staffed with both the right number of resources and the appropriate skill mix to do the analysis. [This office] is moving in this direction with some reluctance because it increases its overhead... With some reluctance, the dedicated staff is increasing. As this is increased, the skill mix is being adjusted to include an operations research analyst. This person is expected to help with the analysis using training, skills and experience to determine the right approach to analyze the data and then also ascertain the validity of the data.

I'd also want [analytic staff] to have enough operational analysis skills to know what a requirement is and how to vet a requirement. And how to express a requirement in an actionable way. Actionable in both the terms of building a budget to meet that in a realistic fashion and knowing what you're going to take to execute. And knowing how to scale up and scale down. So there's a number of skills sets that they need to have. They don't need to budgeters, as far as I'm concerned. They don't need to be program managers. You can deal with that later. That's the most important piece right up front.

It doesn't matter what you call it, every agency needs program focused long range budgeting (aka programming). We now have the technology to make it work better, and with further investment in the planning and workflow modules (\$2 million) we could have a Cadillac system for far less than the DOD spends on its automation.

Solution: Improved Communication

Clearer communication and traceability of budget and program data was the suggestion of most respondents. Respondents desired the availability of an annual crosswalk between the program and appropriation structures. Further, there was a strong desire for budget data in PIRS (or E2E) to be as current as possible. One respondent stressed the need for the entire agency to standardize the use of a single baseline that reflects the "actual budgets that are outside of NOAA."

The communication and collaborative development of agency priorities was another top recommendation. A lack of transparency of decisionmaking, particularly in the budget phase, was a concern. There was a general call to make programming and budgeting phases more transparent.

Respondents indicated the desire for better communication of decisions and decision justifications, for example, a written account of why certain items were approved in the budget and why others were not, or why certain items were prioritized over others. Feedback or "lessons learned" should be directed back to Programs and FMC Managers.

Respondents indicated that the priorities of Congress, OMB, and DOC need to be better communicated to NOAA staff in order to most efficiently plan, program, and budget, as well as maintain stability of priorities from phase to phase. One respondent suggested that the AGM

truly define these agency priorities. Respondents also desired that NOAA's priorities be more collaboratively developed with LOs to address execution concerns.

Respondents also suggested better communication with the external world to get feedback on NOAA services, develop the Strategic Plan, and develop support for NOAA programs. Two respondents suggested that PMs communicate directly with Congress, OMB, and DOC.

Representative Quotations:

What gets supported in programming may not get supported in budget formulation... Consequently, each goal has developed guidance that attempts to address the budget formulation issues upfront in planning process, probably as should have been done 4 or 5 years ago when this started. That certainly is an implementation issue - better understanding of the end game goes along way to success in the end-to-end process.

Provide clearer, better focused guidance/priorities from NOAA leadership from the start. While it is important to canvass NOAA for good ideas, NOAA leadership should know up front what its priorities are and focusing PPBES efforts on advancing those - versus allowing a lot of time and effort to be spent on alternatives that will not go anywhere or are much lower priority. Simply stated, priorities should be top down, not bottom up.

If the "budgeteers" have the pulse of our nation, congressionally, then that information needs to be integrated into the AGM which then drives the planning and programming.

Revise the process and data systems to be more responsive to budget decisions made after programming. My staff have spent considerable time working with the programs to ensure that PIRS has the "right" numbers, yet there are continual issues.

A bridge or crosswalk to NOAA's budget structure should be required with each alternative presented in the Program Plan and matrixed programs should crosswalk among their separate LO budgets. This crosswalk would cross between the way resources are "packaged" in an alternative to the PPBES database system and to the NOAA Budget Structure.

Simplify the planning requirements and keep them consistent from year to year. Each year there are additional requirements for data and information and they never build on the previous year.

The system needs to be more transparent. If you don't feel comfortable explaining the choices to the employees and what it means to them, then its probably something NOAA should not be funding.

PPBES needs a way to get external feedback. We have the view that NOAA knows what's best and we'll tell everyone else the 'best solution'. We need to entrain our constituency to work with us and support NOAA's budget requests and initiatives. We tend to alienate our best customers and supporters.

Require more complete documentation of decisions. The programs spend a great deal of time documenting and justifying needs, but the feedback to the programs is substantially less. Part of that is due to the volume of information. Streamlining requirements and documentation would help, but we should also consider modifying the system so that we decide what really needs to be reviewed and analyzed at a level beyond the individual Program and LO.

Solution: Improved Phase Transitions

There was a general call for greater synchronization and transparency among the activities of the offices that conduct planning, programming, and budgeting (PPI, PA&E, and CFO, respectively). In particular, respondents wanted strategic planning to be better connected to the

rest of PPBES. They also called for greater and earlier involvement of the NOAA Budget Office so as not to waste time creating alternatives in the planning and programming phases that will ultimately be rejected. Incongruous priorities from phase to phase were another concern. One respondent recommended that there not be a separate prioritized list of NOAA activities (for DOC and OMB) beyond that produced in planning and programming.

Respondents called for a “true” end-to-end budget information system that would facilitate synchronization and transparency between PPBES phases. They were not confident that the E2E system would realize this. Also with respect to corporate-level support, respondents noted a lack of commitment of leadership, particularly to performance management, and recommended that managers be supported with training and then held accountable for performance.

Representative Quotations:

Most importantly, I think the process fails to implement true strategic planning. The strategic goals of the agency should not change greatly from year to year. The EGT should have a set of key strategic goals and performance measures that would be used to guide the programs in doing their planning to meet those goals. Program POPs would focus on the program contributions to these strategic goals, and alternatives would be integrated -- not along a theme line like "ocean governance" or "climate change" -- but around achievement of one or more strategic goals, with the optimum mix of contributions from multiple programs to advance NOAA toward meeting the goal most effectively given the resources available that year. We would advance from year to year in a consistent way toward those goals. By the time we finished programming for one year, we would already know our starting point for the next step in achieving the strategic objective.

Planning phase - Move the POP out of this phase. Do annual planning at a higher level to determine Agency's priorities for the programming year (with specific, meaningful, and traceable guidance which requires focused efforts). Conduct strategic planning reviews on a two or four year basis... Programming Phase - combine POP and current programming effort, focusing on the priorities determined in the planning phase... Budgeting Phase - budget should follow programming except where there are issues of executability and fact of life costs which must be addressed. Fact of life costs do not include sustainment issues caused by bad behavior, e.g. programs or Line Offices seeking earmarks or 1 year funding without including multi-year O&M costs.

Program Managers could meet in early Jan (before Planning begins) and provide a high level overview of projects. I know we are missing potential collaborations because they seem to arise in the middle of the Planning (POP) phase when everyone is focused on trying to link to other goals/programs. Often too late to make a real difference.

I suggest that the POPs are all that should be required as a deliverable to programming from the goals. Line offices should still provide an IPL at the end of POPs. The analysis coming out of PA&E's review of the POPS along with the NEP/NEC discussion would serve to focus the Goals on further analysis based on Programming Guidance. I see three valuable deliverables coming out Planning: 1) a good analysis of current program, 2) Improvements and enhancements to programs and 3) new ideas and directions.

I would posit that NOAA should spend far more time using their Goal Team and Councils to address the strategic issues of the day (e.g. HFIP, UAS, IEA, Aviation Weather) and coming up with NOAA wide plans to address a smaller set of critically important issues. The way PPBES is structured now, we arbitrarily force the status quo in thinking for much of what we do. In my opinion it would be far more beneficial for PPBES to allow the Goals and Programs to focus on strategic issues rather than tactical response and template filling.

Combine the planning phase with the budget process and start the budgeting process sooner and have one set of: budget tables, justifications, fewer meetings.

Provide direct guidance from the Administrator, CFO, and other members of leadership on where opportunities lie and ask the Goals and Programs to provide plans on how to implement. (E.g. What will fly with Congress; where is there an opportunity to step up internationally, etc)

Solution: Process Simplification

Respondents generally perceived PPBES as encouraging process for the sake of process. Recommendations for process simplification included reducing the amount of process, data collection, and duplicative work. Most felt that PPBES should be “streamlined,” particularly the planning phase. One person simply stated that NOAA should “plan less,” as there is no need to re-vet what has already been vetted in previous cycles. Some respondents felt that we should focus on producing solid budget justifications. Others commented that the products of planning should better support budget development, and that they need not be produced annually. Others still called for a two-to-four year planning and/or programming effort. In the interest of reducing process, respondents also called for fewer alternatives and fewer priorities. One called for better training on PPBES activities. Another suggested aligning PMs with execution responsibilities.

Representative Quotations:

I do feel it is absolutely necessary for the agency to have a system to prioritize activities as well as be in a position to be reactive to the dynamic needs we have, but whether the current PPBES is cost effective and sufficiently flexible, I would opine a better/simpler system could be developed.

The system generates a vast amount of written material (POPs, milestones, briefings, “program change requests”, Integrated Priority Lists) - can the information required for some of these documents be reduced? For example, the annual generation of POPs takes an enormous amount of work. Few of the alternatives are typically funded in a year; does a POP need 15+ alternatives? The capability-funds matching process also takes a significant amount of time; is that used?

Changes occur annually in the process, formats, data types that are extremely inefficient to implement- these should be more stable from year-to-year.

We should be able to work through the annual process with less effort. In most years, there are a few key priorities identified that need attention, but many things that are highly unlikely to receive new funding. Triage is in order. If an issue does not rise to the level of potentially getting new funding, we should leave it alone for the year. If it is high priority, we should jump on the necessary documentation. If somewhere in the middle, a little judgment will be necessary - but it should not be necessary to repeat the full process for every program every year.

PPBES, primarily the Planning component, has undergone significant structural/process changes each year. This is an indicator that NOAA has yet to find what does work well. A simple principle for this process is to keep it focused and simple. Again, our end outcome (ie, a Congressionally enacted budget) is typically much different than what gets put forward by PPBES for a particular fiscal year and the process should recognize that.

If the planning phase was shorter, and more concise, it would be more attractive for the top flight of SESers to participate. By doing so we could concentrate on a few high priority issues, rather than pitching dozens of small alternatives that have no hope of being funded.

Planning: simplify so it only occurs when the strategic plan is updated or when there is a shift in the organization. At that time either have a strategic portfolio analysis or a strategic plan but not both. Eliminate the AGM (it will never be focused enough to be useful), return to updates of the PBA only when strategic plans are updated. Planning should be simpler and shorter so they can take into account the latest budget decisions. Programming:

program plans should only be for the changes as requirements shift. Should take into account OMB and Congressional budget decisions. Should take into account the O&M costs of initiatives. Execution: goals should not have to report on programs they don't execute.

The number of initiatives/alternatives should be reduced by an order of magnitude. There are hundreds in each cycle, and it really is a waste of resources and time. This smaller, more focused set of alternatives (that map directly to NOAA's priorities) should then be evaluated rigorously to ensure the solution meets the need/gap in the most cost-effective and organizationally sensible manner... Cut all the red tape out of the process and focus on the end game. All that really seems to matter is the budget phase - the narratives, getbacks, etc. - so the development of plans and alternatives should center around ensuring those materials are well-developed and well-coordinated. I'm not suggesting that strategic planning isn't important, but it doesn't seem to be well connected to the PPBES planning phase.

The data-mining aspects of the PPBES process have improved, however, it is still very difficult for collection and gathering of information, requiring programs to constantly respond to taskers (just take a look at the "Verification of Education Data due 7/6/09") that take up lots of time and have questionable benefits. It has been a consistent problem that Program Operating Plan questions and data submission requirements do not fundamentally address what the Goal Team needs to provide for the Strategic Portfolio Assessment (SPA) and Program Plan. Result: more taskers, more time. If the process were to be streamlined so that data gathered on the front end could be used for all other aspects of the process it would be a great improvement. Right now, in summary, it seems that programs spend a lot of time generating spreadsheets and responding to taskers of questionable benefit requiring a lot of time.

I would like to see the process explained more clearly. When I first began using the PPBES system at NOAA, I spent most of my time trying to figure out how to do each task. The training was not very clear and the people were not helpful when I asked questions. I understand the process better now, but it was extremely frustrating to learn. I think it is still too complicated. I receive emails with deadlines that are not the real deadlines. They are deadlines for a document to be finalized, but my deadline is actually three weeks before that. The overall process can be more streamlined.

Align Program Managers to their day jobs and portfolios, and make the positions meaningful. Currently, there are at least two categories of program managers: those who report the Program news and are not responsible for the activities or execution within their Programs, and those who are responsible for an execution portion at least. In the former case, many matrix Program Managers find themselves, whereas the more successful Program Managers are in the latter case - actively engaged in the execution and therefore responsible for it. I'm not advocating abandonment of matrix principles; just encouraging a better alignment of PMs to portfolios.

Solution: Radical Restructuring

Respondents suggested more radical changes to NOAA's PPBES, particularly with regard to which organizational elements have what kind of authority. These respondents questioned the current roles of PPI and PA&E. One respondent stressed the need for both offices to be more accountable for why information is collected and how it is used. One suggestion was combining PA&E with either PPI or CFO, as there is already overlap in their functions. Another suggestion was to dissolve PA&E (thus, leaving programming to LOs and programs), stating that this office lacks programmatic expertise to provide support and that the CFO already fulfills the role of budgetary gatekeeper.

Respondents commented on the conflict of interests that arise because PMs are not independent of their execution responsibilities. One respondent described this as "the single biggest fatal flaw" of NOAA's PPBES. The suggested solutions, for the most part, involved eliminating the

GTs or aligning mission goals with LOs. Alternatively, another suggested solution was to provide PMs with budget and execution authority in direct correspondence with their planning and programming authorities. Respondents said that PM should be a full-time job; one respondent suggested that they be housed under PPI rather than any particular LO.

Other issues raised with regard to structure included the “right-sizing” of Programs and GTs, and taking advantage of regional collaboration. Two respondents questioned the fairness of comparing very large Programs and GTs with very small ones. Two others respondents also saw Regional Teams as an asset and should be incorporated into the PPBES framework through planning.

There were respondents who recommended reverting to the old, pre-PPBES system, but the overwhelming majority did not think that this was a good idea. Those who preferred the old system did so with the caveat of “modification.”

Representative Quotations:

As the system has matured, I believe it has evolved to more closely mimic the Line Office structure than was originally intended. The result is that individual LO's now consider that they “own” the goal and its efforts. As a result, the strategic direction setting, planning, and programming are handled in more of line office specific way than I believe works.

Instead of five stovepipes we now have 47.

I remember the PRT recommended a future phase of the matrix management that goal leads/program managers will move out of their respective LOs and moving into PPI. I wonder if this future phase/option of the NOAA matrix management structure is still on the table... I recommend NOAA consider building a true matrix management structure to have full time program managers to do the PPBES and execute their program budget to achieve NOAA's mission goals. Full time program managers should be part of the PPI, not part of the LOs.

Move away from the PPBES program structure (45 programs) with designated “program managers” to delegate more direct responsibility to the existing true line office execution managers for integrated planning and programming. The people responsible and accountable for delivering NOAA's products, services, information, and science each day should be the same people developing gap analyses and alternatives for their programs. Today under PPBES, many of the 45 programs are not true programs but rather amalgamations of functions within line offices and thus the program “manager” title is a misnomer as he or she does not have true decision making authority for that program. This then creates a major disconnect between planning and execution.

Align the Goals with Execution. NOAA has matured and is much more integrated across Lines than we were eight years ago. Celebrate the victory, and align the Goals with the Lines, retaining the performance expectation that stovepipes are not tolerated: punish stove piping by not recognizing insular needs that fail to embrace all appropriate related program activities. But align the Goals with the Lines, now that we've changed much of the culture. Staffing needs will be reduced by eliminating the redundancy of functions for planning within a Goal, and planning within a LO. Organizationally, and so far as performance plans are concerned, executives charged with leading Line Organizations were recruited for and still expected to bring vision and planning leadership to their organization, consistent with position descriptions that they were hired under. Much of that responsibility and authority has been ceded to the Goal Leads, which I find inappropriate to sustain. If our LO leadership is not visionary, collegial, or engaged across NOAA, we have performance plans and reassignments within the SES as an alternative.

If the PMs and the GTLs had execution sign off authority then there would be more linking between the LOs, and more support for cross-LO alternatives. As it is, the LOs do not necessarily share the GTLs priorities especially for alternatives that carry money going to multiple LOs. I think the Goals need a more direct execution role to be effective.

I would create a hybrid of the old system and PPBES. Eliminate the goal teams and go back to planning within the NOAA Line Offices but retain and enhance Program Integration requirements in accordance with NOAA Administrative Orders, particularly for “matrixed programs” between Line Offices. I might merge a couple of programs that have extremely similar functions and objectives within and under one line office. Apply the Drivers of each line office to the legislative requirements and create planning documents that hold goals to meet those requirements along with the efficiencies that will support meeting those goals. Provide for planning that eliminates or intentionally minimizes work in certain mission areas that are clearly not priorities and that really are not needed any longer. This would be less expensive than PPBES because it doesn’t require the same level of redundancy and allows personnel to operate within a clearer and better defined structure.

There remains the challenge of the goal team vs line office approach and the ways to achieve cross-NOAA integration. If an alternative to the goal team structure were to be considered, cross-NOAA integration could be achieved through focused initiatives directed by the planning phase.

Regional collaboration has provided more cross line initiatives and pollination in the past two years than any other program. Regional coordinators and teams have the ability to interact with all line offices and stakeholders at the regional level. Provide them with a regional strategic planner and even more forward cross line initiatives can be generated. If cross line execution is the key, and I believe it is, then all planning, programming, and budgeting should be tied to execution.

Focus Group Methods and Results

One focus group activity was sponsored by the Team. Information from this focus group was added to the data collection efforts after the DUS suggested that the review needed to include the views of lower-level staff. The Team secured the *gratis* services of Ms. Susan Callis, a professional facilitator with I.M. Systems Group, Inc., to conduct the focus group.

Regarding the composition of the Focus Group, it is important to note that Ms. Callis recommended that the Team undertake an intentional selection of participants to guarantee appropriate coverage of the important levels and functions of employees participating in NOAA PPBES. However, in the interest of time, the Team opted to recruit individuals from a pre-existing group calling themselves the PPBES “Lunch Bunch.” The Team understood this group to include staff working in the PPBES process in positions below senior NOAA officials and FMC Managers, namely analysts. The “Lunch Bunch” offered the added advantage of being a standing group with regular meetings, which could accommodate the accelerated review schedule.

However, after completion of the moderated Focus Group activities, the PPBES Review Team received feedback from both Focus Group members and others within NOAA that the “Lunch Bunch” is not completely representative of lower-level, “tactical” people working in PPBES within NOAA. The Team acknowledges that, given its strategy of selecting participants, it did not get strategic coverage of the LOs, matrix units, or types of positions/functions which would

have been optimal for this review. Multiple, strategically-populated groups would have been ideal and should be considered for future assessment activities. Nevertheless, the Focus Group did provide rich information about PPBES at NOAA from the perspective of analysts.

The Focus Group meeting was held on 16 July 2008. The Group's final report is provided below.

Focus Group Final Report

Report of PPBES Focus Group Working Session

July 16, 2008

Prepared by Susan L. Callis

I.M. Systems Group, Inc.

With input and comments from the PPBES Focus Group and supporting IMMSG team

I. INTRODUCTION

The Deputy Under Secretary (DUS) of NOAA charged Gary Matlock of the National Ocean Service (NOS), on detail to Programming Planning & Integration (PPI), and Michael Abreu, Chief Financial Officer (CFO) of the National Environmental Satellite, Data, and Information Service (NESDIS), hereafter referred to as Evaluation Team, to evaluate the costs and benefits of NOAA's Planning, Programming, Budget, and Execution System (PPBES). The DUS also asked for recommendations on resolutions to identified issues within PPBES. The length of time allotted for the study was two months.

II. METHODOLOGY

In response to a recommendation by the DUS to collect input from people on the technical, execution side of the PPBES process, the Evaluation Team decided to conduct one focus group on PPBES.

A group of people representing the Line Offices within NOAA meets monthly to discuss PPBES issues, solutions and workarounds. The "Lunch Bunch," as they call themselves, is an informal gathering of NOAA staff who have similar roles and responsibilities in NOAA and who discuss PPBES issues of common interest and concern. The Evaluation Team decided to seek input from this group of individuals, termed the "Lunch Bunch", because: 1) it represents those in the Line Offices who work on the ground in PPBES Focus Group and 2) the group is standing with regular meetings, ergo a convenient source of information given the limited time available for the evaluation. At the Focus Group Session, participants offered individual comments during group discussions.

The Evaluation Team asked Liz Davenport (NOS), co-chair of the Lunch Bunch, to coordinate the presence of 12 members of this group to participate in a focus group on the subject of PPBES. This focus group was held on Wednesday, July 16, 2008. This session was convened as a special meeting of the Lunch Bunch and the duration of the meeting was extended from one hour to two hours to allow more time to accomplish focus group goals. The focus group was attended by six persons:

Ellen	Office of Atmospheric Research
Liz	National Ocean Service
Aaron	National Weather Service
Jim	National Marine Fisheries Service
Susan	National Ocean Service

Milena Schleifer PPI

An outside facilitator, Susan Callis, was secured *gratis* from IM Systems Group Inc. to lead the PPBES Focus Group Working Session. IM Systems Group Inc is a company that supports NOAA in many different areas on several contracts. Callis, hereafter referred to as the facilitator, is an experienced facilitator and a retired former NOAA employee with PPBES experience.

The focus group schedule of activities, as determined by the facilitator in consultation with the Evaluation Team, was as follows:

1:00-1:30 pm	Identification of PPBES issues
1:30-2:30 pm	Identification of solutions to the issues
2:30-3:00 pm	Identification of PPBES benefits to NOAA

Once the session began, however, the facilitator allowed free-flow discourse on the identification of PPBES issues. She did not stop the discussion of issues at the end of a half-hour because there was a sophisticated group dynamic, stemming from the group's experience, established familiarity, and preparation. The facilitator halted open discussion at the end of an hour to work with the group to summarize, categorize, and rank issues as well capture appropriate resolutions. When the issues and resolutions were summarized they were prioritized in the order of magnitude and need for solution. Fifteen minutes then remained for identification of benefits.

It is important to note that the findings from this focus group are a product of the collective discussion of only these six individuals, given their personal knowledge, location, and experiences. These findings are not intended to be generalized to all people working within all aspects of NOAA PPBES.

III. RESULTS

A. ISSUES AND RESOLUTIONS

The Group agreed that PPBES provided a forum for communication, collaboration, and coordination of NOAA mission goals across Line Offices, Programs, and Goal Teams. However, there are major issues with accountability and trackability that affect most every aspect of PPBES which reduce its efficiency and effectiveness. This report describes those aspects and issues and offers possible solutions in the order of importance.

1. PPBES Resources

Issue:

The fact that so many people are involved in different roles during different stages of PPBES and, the people involved changes from beginning to end, results in a lack of accountability. The Focus Group identified this problem as having "too many masters." Also, the mix of roles causes difficulties. Representatives of Line Offices, Goal Teams, Councils, and Programs are

involved at different times in the PPBES process. Having both Line Office and Goal Team representatives involved at the same time, as well as Councils and Program Managers, is causing inefficiencies and a lack of accountability. In other words, matrix management is adding to the “pain” experienced. Program Managers wear dual hats and are not accountable on the Goal/Strategic side, so they tend to make non-transparent funding adjustments in these areas. The “strategic” people have a different chain of command from the “execution” people. Processes within each of the organization types and at the NOAA and DOC level are causing duplication of effort and gross inefficiencies.

Another facet of this issue is that scientists and technical people who have expertise in various projects and programs have little say toward the end of the planning process and do not receive feedback as to why funding they requested was not received. In other words, the system lacks transparency in decision-making and some outcomes of the process appear arbitrary. Decisions toward the end of the planning process and during other phases of PPBES are made by higher level managers who have little knowledge of the intricacies of lower priority projects and programs. There is a significant gulf between the persons with the expertise to advise on the quality, need, and likely efficiency of projects and those who decide which projects are funded or advanced. Those who make these decisions may not have the necessary scientific expertise to judge effectively between alternatives.

Recommendation for Solution:

PPBES needs constant oversight from someone with institutional knowledge throughout the entire cycle. The number of people involved in the PPBES process should be reduced. Roles need to be better defined. People in each role need to account to a specific person. There needs to be a single point of accountability, a person(s) who monitors the entire process and ensures continuity and compliance to business rules.

Because Congress appropriates funds to Line Offices, it is suggested that the Line Offices be involved in planning and accountable for funding rather than the Goal Teams. Goal Team Leads should serve as coordinators of the planning effort for each mission goal. The same with Councils or Goals; either the Councils or Goal Leads should be leading planning efforts, but not both.

If the number of people involved is reduced, it is envisioned that they can be properly trained and can be held accountable for the entire process. The same people can and should be involved in the PPBES from end to end.

2. Tracking Data and Information supporting PPBES needs improvement

Issue:

It is not possible to track data through planning, programming, budgeting, and execution, what actually gets executed and brought around again. PIRS is not the answer. It is not possible to replicate what was done throughout the PPBES process. It cannot be determined what was planned versus what was executed. For example, X may be planned for execution, but when the

budget is dispersed, it then gets buried into the budget of a particular Line Office and is not readily identifiable unless someone with institutional knowledge was able to track it.

There are issues with what budget items should be and how they should be tracked. Currently, there is a mix of projects, programs, goals, and milestones. There is no common denominator which can ensure continuity throughout the PPBES process. This reduces accountability of funds and the missions they support. It is difficult to track data through the entire cycle. Programming changes should be tracked.

The accuracy of data and information that is currently tracked is questionable. The types of data tracked and their sources are sometimes wild guesses.

In addition, new initiatives are made more visible, while Operating and Maintenance costs are suppressed and de-emphasized. In reality, shortages for O&M result can cause emergency scrambling and reprogramming. Often small but important projects are “swallowed up” by larger projects and “roll-ups.”

Recommendation for Resolution:

The Group recommends choosing a common denominator, i.e., either project or milestones, by which to track funding throughout the PPBES process. Attention should be given to processes by which requirements can be better identified and tracked, in addition to metrics, FTEs, and life-cycle costs. Activity-based costing could be used in the future to track what was planned and actually executed, but only if a common denominator such as project or milestone is chosen.

During the planning process, life-cycle costs should be identified and included in out-year budgets. Life cycle costs should be all-inclusive, including human resources, operations, maintenance, and decommissioning costs.

For occasions where project funds are to be split between multiple Lines, written agreements should be required spelling out what percentage of the received funds will go to which line for which task. This requirement will increase the likelihood that Lines without control of the budget will release funds to other offices that participated in the collaborative effort and, in addition, this will increase the potential for tracking the performance measures for projects funded through the PPBES process.

3. Lack of Business Rules and Enforcement

Issue:

According to the focus group participants, OMB, DOC and NOAA business rules are often broken by various people at different levels within the organizations at different times during the PPBES process. The lack of accountability allows personal and organization-specific agendas to overtake predetermined priorities. Other rules are made up or changed at will by various people at various stages throughout the process. The system allows Line Office Managers to make decisions that can actually hurt the NOAA mission, for example, by making a unilateral decision

to cut out lower priority projects. Lack of accountability creates an environment which allows business rules to be broken.

Without business rules, the President's Budget or anything that is added after programming does not get added into PIRS for the outyears. The Goals have to buy back things that are already in the current program. Also, PPAs should not be eliminated. This is a problem when translating to budgeting and creating new rules without applying OMB Circular A-11 budget rules. In the view of focus group participants, when OMB rules are violated, it does not matter what is done in planning and programming.

There are both formal and informal procedures and rules in the culture of NOAA and PPBES. Some of the informal rules seem to be holdovers from old ways of doing business and ensuring requirements are met. Although strides have been made to implement new business rules that support the PPBES process, existing rules need to be enforced and additional rules need to be established.

Recommendation for Resolution:

Business rules need to be complete and enforced throughout the entire PPBES process. Persons who break the rules need to be held accountable and suffer the consequences. Continued effort to break away from old business rules used prior to PPBES should be made through education, training, and building trust. If other recommendations in this report are followed, such as reducing the number of people involved in the process and NOAA management gaining personnel trust by providing feedback and reasons for their decisions, trust can be promoted which will reduce any one person's justification for breaking a business rule.

Once the President's Budget is received, it needs be to entered into PIRS. Business rules should be established and enforced to cover situations like funding added after the programming phase. Once funding for a project is planned and programmed, the project should not have to keep asking for the funding or should not have to buy back funding.

Business rules should be established that comply with both DOC and OMB rules. This will facilitate the approval process and enhance NOAA's chances of receiving the funding it requests. Rules should be established to prevent unilateral elimination of PPAs and breaking OMB A-76 rules.

Items tracked for PPBES should comprise the Annual Operating Plan. The annual Performance and Accountability Report should contain information on whether performance metrics were met, whether or not PPBES planning and programming produced the desired results, and whether project stakeholders' requirements were met.

4. End-to-End Process is Broken and So Are Links between P, P, B, and E.

Issue:

There are no strong links between each of the phases of PPBES. There is too much planning and little accountability as to whether or not the plans are kept by the time Execution phase is reached. After Congress determines appropriations and they are distributed from Department of Commerce, to NOAA, to the Line Offices, accountability of funding and how it is used becomes very weak to non-existent. Programming can easily change with no accountability before Execution. Line Office Managers can adjust priorities already established in the planning phase. Funds can be juggled and reprogrammed at lower levels by different organizations.

Recommendation for Resolution:

Efforts should be made to make PPBES an end-to-end system. Less time should be devoted to planning and more time and effort should be devoted to the other phases of PPBES. Better business rules and accountability for the Execution Phase should be established. Links should be established between each phase. The Group thought that if a stronger link between execution and planning could be established, other links would occur with lesser effort. It is essential that processes are established to ensure that the funding planned is the funding that is allocated to a budget item and that funding received is tracked and accounted for. If the planned funding is NOT budgeted after Congress' appropriations, then the responsibilities should report on a revised plan and its execution.

The PDM should be made executable. Those program changes that come through the PDM and make it through the NOAA budget, LO exceptions, DOC budget, OMB, and Congress should be known and tracked to determine items that were funded and executed and if they met requirements, i.e., made a difference. This would ensure that program changes that were the result of PPBES were known and tracked to validate the strategic budget formulation planning aspects of the PPBES process.

At the end of each PPBES cycle, the results should be evaluated so that the process can be adjusted using lessons learned. It should be possible to tell if everything planned and prioritized received the funding programmed and that funding was executed as planned. Alternatives should be tracked through their life cycle through the AOP. The questions should be answered, "Did we do it? If not, why? Did we do the right thing? Did we make a difference with the investment we made?"

5. Tools supporting the PPBES process are broken

Issue:

Different organizations use different tools to gather information and data for final input into PPBES. They help, but there are deficiencies in the tools that need to be addressed. Tools are meant to be end-to-end, but they, in fact, are not. They, in fact, are an example of a "system" put into operation without necessary life cycle costs. With no life cycle costs budgeted, there are no funds for maintaining, improving, or decommissioning these tools.

PIRS is a problem and it is system-wide. There is a lack of information in PIRS. PIRS does not enable one to track data from planning, programming, budgeting and execution. If a PPA is

eliminated at some point, the PPA doesn't really disappear. Then all the changes that were made are lost. There are also problems with Casa Nosa.

The new E2E system, presently under development, was not viewed as an effective answer to the end-to-end problem. In the view of some participants, the E2E system presently is ill conceived and poorly designed and it is being poorly executed. More attention is being focus on completing the system, than on completing the system in sound and functional manner.

Recommendation for Resolution:

PPBES support tools within NOAA should be evaluated with a controlled, established process. The outcome should provide requirements for improvements which can be priced. Decisions should be as to which improvements are cost effective. Funding should be planned to implement the approved improvements.

6. Transparency in the PPBES process is minimal

Issue:

Just as there should be accountability of lower level PPBES participants to upper level managers, there should be accountability of top-level NOAA managers to lower level PPBES participants. Currently, lower level PPBES stakeholders are not advised of the results of the various phases of PPBES. Reasoning and justification for planning decisions at the highest level are not explained to planning participants. For example, participants noted recent experiences at DOC briefings where they were embarrassed because they had no knowledge of NOAA's existing priorities list because they were not provided this information by NOAA corporate leadership. NOAA priorities are not clear because they are not conveyed in an open and consistent way. This breaks down trust at lower levels and, in turn, breaks down PPBES effectiveness.

Recommendation for Resolution:

PPBES Participants should be provided with regular feedback on the results of each stage of the PPBES process. They should be provided with planning decisions and reasoning that went into the decision. If changes in planned priorities are made at anytime throughout the process, justifications should be provided to stakeholders and upper-level managers. Regular feedback will build trust and gradually improve the end-to-end process. Participants will be able to evaluate what worked and what didn't.

7. Timing should be improved

Issue:

For organizations with partners outside NOAA, it is difficult to synchronize with the partners' planning processes.

Recommendation for Resolution:

It would help if the NOAA PPBES process was streamlined and started later.

B. GENERAL IMPROVED SCENARIO

Some general traits of an improved PPBES cycle are described below. They are not all-inclusive.

- Funding requirements are determined for projects.
- A PPBES oversight committee ensures that funding and priorities planned in the beginning of the process are received by the requesting projects in the budget phase of the process.
- Line Office CFOs are members of the oversight committee.
- If the funding received by a project is, in actuality, less than what was planned, the CFO will report to the PPBES oversight committee with a new spend plan and state what can and can't be done with the funding actually received.

B. BENEFITS

The Focus Group identified the following benefits of the PPBES process:

- Provides time for planning
- Provides forum for cross-project and Line Office communications, coordination, and collaboration
- Experience with PPBES for the past three years has provided NOAA with PPBES "experts"
- Useful to define NOAA's present and future on the non-science side so that the budget can be defended.
- Provides a formal structure that has helped NOAA in responses to OMB's Program Assessment Rating Tool (PART) evaluations, e.g., explaining program uniqueness, strategic planning, performance management, and financial management.
- PPBES has promoted positive behavior changes which support organizational efficiency and effectiveness.

IV. CONCLUSION

The development of section III. Issues and Resolutions above, illustrated that accountability in several different forms throughout the PPBES process would tighten the process and improve efficiency and results. Each type of improvement supports the other. So the best gains in increasing PPBES cost benefits would be achieved by implemented ALL the suggested resolutions.

Questions that need to be answered include: Does PPBES help NOAA achieve its missions? Whether or not NOAA has PPBES, the bottom line is that NOAA's people help it achieve its mission. PPBES should be a tool that supports the people achieve NOAA missions. It should

not be an entity in itself with questionable cost benefits. Therefore, it would be beneficial to determine direct costs of PPBES.

Participant Comments on the Focus Group Final Report

Ms. Callis provided a draft report to PPEBS Review Team members on 18 July 2008. Focus Group participants were given until the close of business on 21 July 2008 to offer comments on the draft report. Comments offered at this time by the Focus Group participants were incorporated into the report during revision. The “Report of the PPBES Focus Group Working Session” was submitted in final form to the Team on 22 July 2008.

As participants of the PPBES WG, on 29 July 2008, Elizabeth (Liz) Davenport (NOS) and Ellen Mecray (OAR) offered additional comments in the “Report of the PPBES Focus Group Working Session”:

Focus Group Clarifications from Liz Davenport:

- Participants have a mix of responsibilities for monitoring PPBES for their LOs, without serving in significant PPBES responsibilities (e.g., served as a program manager, program coordinator, or participated in the development of a POP, SPA, Program Plan, etc.).
- Activity-based costing (ABC) was not intended as a recommendation for NOAA at this time. Our “capabilities” are immature, unsettled, and would be “garbage in, garbage out” if they became the basis of how we tracked planning through execution. ABC should be considered at a time when our PPBES processes are more mature, predictable, and stable. Currently, we can improve tracking funding of projects to our annual planning cycle, with AOPs as the next step forward.
- Written agreements spelling out what percentage of funds go to which office may not be the best procedure. Offices should agree to a process for reviewing changes to the funding and collectively agreeing to the best project path to pursue once appropriations arrive.
- Many 'policy actions' are identified in the PDM without a process to address and/or to resolve these issues. Let's establish a predictable process to address policy actions (i.e., things that may not lead to a level of proposed funding in the budgeting phase).

Focus Group Clarifications from Ellen Mecray:

Regarding “choosing a common denominator,” there are two subtleties: First, it should be a “least common denominator.” Second, it should be couched more as to “seek” a least common denominator since there is a strong possibility that no such least common denominator may exist or be possible between the current NOAA budget and strategic structures. The intent is that we can proceed in certain directions only if we are able to come up with such a lowest common denominator and that, lacking such a denominator, we'd have to make other accommodations and be satisfied with less precise tracking of strategic program efforts.

Working Group

Convening the Working Group

The “Charge for the PPBES Review,” which was issued 11 June 2008, asked the PPBES Review Co-Chairs to convene and lead a PPBES Review WG of eight to 10 people to carry out the review process. Originally, as noted in the “Tentative Implementation Plan” drafted by the evaluation team on 17 June 2008, the Team intended the WG to assist the Team in narrowing the evaluation and refinement of the review methods. However, the function of this body evolved because impediments hindered the Team from convening the WG quickly and the need to begin data collection was most pressing. In the “PPBES Review: Evaluation Group Descriptions” that was issued on 23 June 2008 (Appendix 3), the PPBES Review Team proposed a new role for the WG that would emphasize their function as a source of data, as opposed to additional review managers.

With approval from the NEP and DUS Mary Glackin, the Team convened the WG to:

- Clarify data,
- Investigate and research questions not elucidated during other data collection activities,
- Groundtruth findings,
- Vet findings and conclusions, and
- Generate additional recommendations.

The following individuals were solicited to nominate WG members:

- LO DAAs
- Staff Office Deputy Directors
- GTLs
- SGTLs

The call for nomination of WG members was issued via email (Appendix 3) on 30 June 2008, with a due date of 2 July 2008.

In total, we received 22 nominations for WG members. Table 4 below provides the names of persons invited to nominate a WG member, office affiliation, and those WG members nominated and seated.

Table 5: PPBES Working Group Nominators, Affiliations, and Members

Nominator	Affiliation	WG Member
Marlene Kaplan	Office of Education	Paul Barker
William Broglie	Chief Administrative Officer/ Leadership Sub-Goal Team	John Beeman

Vickie Nadolski	NWS	Aimee Devaris
William Corso	NOS	Elizabeth Davenport
Michael Crison	Satellite Sub-Goal Team	Michael Crison
John Oliver	NMFS	Barry Thom
Steve Murawski	Ecosystems Goal Team	Emily Menashes
Daniel L. Clever	Acquisitions and Grants Office	Bob Stockman
Charles S Baker	NESDIS	John Jensen
Brook H Davis	Office of Legislative Affairs	Brook Davis
Craig Mclean	OAR	Ken Jones (Ellen Mecray, Willow Marr)
Eddie Ribas	Workforce Management	Barbara Boyd
Kevin Amos	PA&E	Kevin S. Amos(Matt Hildebrandt)
Tom Laughlin	International Affairs	Sue Ware Harris
Chester J Koblinsky	Climate Goal Team	Neil Christerson
Paul N Doremus	PPI	Susan Kennedy
Steven Barnum	Commerce & Transportation (C&T)	Terence Lynch
George Smith	Weather & Water Goal Team (W&W)	Ellen Mecray
Tajr Hull	Fleet	Erika Brown
Pam Taylor	Modeling and Observation Infrastructure Sub-Goal	Alan Leonardi
William T Turnbull	Office of Finance and Administration (OFA)	
Steven Gallagher	NOAA Budget Office	Linsay Fullenkamp
Jon P Alexander	OFA	Linsay Fullenkamp
Philip M Kenul	NOAA Marine and Aviation Operations	
Mary Beth Ward	Undersecretary of Commerce for Oceans and Atmosphere (USEC)	
Scott Smullen	Communications	Scott Smullen
Sandra Manning	OFA	
Kelly Quickle	USEC	
Roger Mason	OFA	

Jane Chalmers	USEC	
<i>Note: Names in parentheses indicate alternates nominated.</i>		

The WG was convened virtually on 14 July 2008, when a welcome email (Appendix 4) was issued describing the role of the group and a tentative schedule of activities. The WG met in person with Team members on 17 July 2008 when further decisions were made about the timeline and how the group would function in terms of process. At that time, the WG chose to work as a self-governing entity separate from the Team Co-Chairs. WG members selected three Chairpersons in attendance: Sue Ware Harris, Emily Menashes, and Neil Christerson.

The WG developed its own schedule and undertook distribution of tasks amongst its members. They WG members agreed to submit one, unified final response to the Team's initial findings and recommendations, including their own recommendations for the improvement of PPBES (see next section.) In addition, the WG provided subsequent comments on the first complete draft of this report. The Team modified the report to incorporate both sets of feedback from the WG. For a detailed presentation of WG comments, see Appendix 4.

Final Response of the PPBES Working Group

MEMORANDUM FOR: Gary Matlock and Michael Abreu, Co-chairs of the NOAA PPBES Review Team

FROM: The NOAA PPBES Review Working Group

DATE: September 4, 2008

SUBJECT: Report of the Working Group on the PPBES Review

The PPBES Review Working Group wishes to thank the Co-chairs for the opportunity to participate in this important review of NOAA's Planning, Programming, Budgeting, and Execution System. It is our pleasure to attach our findings and recommendations for improvements to the process as a whole for inclusion in the draft that will next be reviewed by the NOAA Councils for review and comment. We look forward to the opportunity to read and comment on the final report prior to its presentation to the NOAA Executive Panel in November, 2008.

cc: PPBES Review Working Group
Avery Sen
Theresa Goedeke

NOAA PPBES Review Working Group Summary Recommendations, Appendix to the PPBES Review Team Report

Background

The Working Group was convened for the first time on July 17, 2008. At that meeting, the set of tasks assigned to the Working Group was outlined by Gary Matlock, Co-Chair of the PPBES Review Team, and co-chairs were chosen for the Working Group.

The Working Group was a distinct entity in the overall PPBES Review Team, and served as a source of independent views and, to some extent, reviewers for the PPBES Review Team's work products.

Over the course of its work, the Working Group responded to discrete tasks from the PPBES Review Team to review materials, develop responses, and provide feedback including:

- Review of survey responses and report;
- Recommended additional sources of input for the PPBES Review Team to analyze;
- Reactions to the survey design and implementation (based on survey responses);
- Comments on the draft History of PPBES developed by the PPBES Review Team;
- Review of the report of the Focus Group;
- Comments (verbally and in writing) on the Draft Findings as produced by the PPBES Review Team;
- Working Group Recommendations to address Findings and improve PPBES at NOAA;
- Comments on the Draft Recommendations and Draft Report of the PPBES Review Team;
- This report to append to the final draft PPBES Review Team report as an appendix prior to NOAA Council Review.

Copies of all Working Group products provided to the PPBES Review Team will be available for review on CD or in a binder format.

Summary of Recommendations:

The Working Group agrees that PPBES, as implemented, has been useful to NOAA in many ways. It must be recognized that PPBES serves a specific function for NOAA, but is not NOAA's Congressionally authorized management structure. According to the NOAA Business Operations Manual, PPBES is an integrated, requirements-based system that is designed to:

- Use NOAA's strategic vision to drive annual investment and management priorities, programmatic and policy choices, and budget development; and
- Provide a systematic approach to allocating resources optimally and maximizing programmatic impact.

Based on a preponderance of data from the initial surveys, the Working Group agrees that the PPBES process should be subjected to a more thorough review than could be conducted by this

Review, specifically focused on streamlining and simplifying the process to meet NOAA's needs. The Working Group strongly recommends that NOAA initiate a 'process review' of PPBES as an immediate next step, to be conducted by the process owners (PPI, PAE, CFO, Goal Teams, LO/SO). The review should be given sufficient time to review the process and prepare a detailed report. That report would then be validated by NOAA's PPBES practitioners – who work on and with PPBES – prior to being submitted to the DUS. We expect that the process review will provide answers or guidance to many outstanding questions surrounding the PPBES.

The PPBES Review Working Group believes that there is sufficient information to begin forming both general and specific actions to improve the PPBES in NOAA. This conclusion is based on: the findings and results from the PPBES Review questionnaire; the Focus Group results; the Working Group feedback and input; and the existing body of feedback regarding the PPBES process (e.g., LO findings and "lessons learned" reviews conducted by PPI and PA&E).

The PPBES Working Group has drafted this brief report that begins to capture suggested actions. This Working Group report reflects many findings and recommendations contained in the broader PPBES Report, but provides some prioritization and some additional specific recommendations on what is most important and what is most achievable. The PPBES Working Group's recommendations are detailed below.

Working Group Recommendations for Improving PPBES in NOAA

Tailor and Streamline PPBES

1. Perform a detailed PPBES "process review": what is needed, when (see calendar recommendation below), how it is provided, how it will be used, and how it will be communicated.
 - a. To be conducted by PPBES 'owners' (PPI, PAE, Budget, LOs/SOs, GTs, Programs, E-LO/SO), findings reviewed and validated by practitioners at all levels (i.e., executing entities, PPBES program managers, GT/PM, LO/SO). The review needs to cover phases and functional linkages among them.
 - b. Thorough consideration of data calls, data required and used (consistency, continuity, duplication, necessity) at all phases of PPB&E.
 - c. Review the "products" requested by PPI, PAE, and Budget (use the FY09/10/11 Serials/Memos); associated data calls from Councils, with an eye toward creating an optimal linkage between products such that additional work is minimized with each successive product.
 - d. Incorporate data and information requests generated in the Execution phase, including quarterly reports, the PAR, the PMA, etc., into the Planning phase as a feedback loop.
 - e. Develop a coherent end-to-end calendar – and use it to streamline and simplify user engagement whenever possible.

- f. Rebuild a logical progression from phase to phase, i.e., a gradual progression from big picture to detailed implementation assuring handoffs where possible from phase to phase without reengaging the earlier phase for the strategic budget planning year.
- g. Address the specific requirements and functions relevant to cross-cutting issues and staff office and mission support functions and how these can be made part of the process without creating artificial data requirements (e.g., requiring overhead funds to be tracked in a way not compatible with how they are generated and spent). The current treatment of these is inadequate and ill-fitting (recommendation to delete previous phase), and there are opportunities for near-term corrections that recognize the distinct characteristics of each, and the associated process needs.
- h. Fully realize the objective that NOAA had in creating the “E” in PPBES. Identify the roles and responsibilities for Execution in the process, specifically identifying the appropriate actions and actors, connecting E to PPB. Identify and clarify the desired linkages between P-P-B-E-and back to P.
- i. Examine the strategic structure’s programs and capabilities to determine if they meet their intended purpose, specifically identifying ways to better link/use them throughout the process. What is the most appropriate and useful level of detail at which to track data within the budget structure? Ensure that expectations for tracking data can be efficiently aligned with current data system capabilities or that they can be aligned with future system capabilities without significantly increasing costs.
- j. Assess the execution reporting process involved in PPBES. This is a critical feedback loop that can build accountability and responsibility into the process from planning to execution. Who should report on execution and when (the current process where Programs report on execution when they have no role in this seems irrelevant. In the past, LO’s reported on execution as part of their “contract” with NOAA HQ to uphold their responsibilities for execution).
- k. Ensure Goal Teams and Line Offices work together to decide, develop and communicate alternatives and “sell” them as they go to NOAA, DOC and OMB. Despite the fact that cross-program, cross-LO, and cross-Goal initiatives are encouraged, they are often at risk due to the current process that destroys their integrity as they go from planning to programming to budgeting.

Examples of the type of outcomes envisioned from the process review:

- a. Consider whether to stagger the POP schedule (development and/or review), e.g., one-third of Programs could complete the POP every year (a three year cycle);
 - b. Data requests should be targeted where the data exists and in the existing format, and targeted to the existing data POC (rather than widely broadcasting the request).
2. Better recognize and integrate external forces in the PPBES process
- a. Ensure that decisions are aligned with external (executive and legislative) drivers.
 - b. Look to history for case-studies of success and failure to inform the future path.
 - c. Identify (and educate on use and access to) “on-ramps” – ways for external, real-time and potentially unforeseen factors to be brought to bear at appropriate locations within the current PPBES phases.

3. Following a detailed process review of PPBES, evaluate the basic organizational components of PPBES, including reviewing the relative stature and responsibilities of PPI, PA&E, and Budget, and how they relate to each other organizationally. Consider whether there are alternative organizational arrangements that would streamline the PPBES process (i.e., reduce complexity and increase efficiency of PPBES process management). In particular examine the pros and cons of so many hand-offs – and the damage done to alternatives developed across programs and/or cross goal when they reach Programming and Budgeting where these offices have little connection to the plans developed and whose products are structured such that well developed plans with multiple cross-LO components are split apart and often lost in the budget process due to LO budget structure (and disconnects between these offices and the planning process that develop the alternatives). Past NOAA structures/processes did a much better job of avoiding these necessary and difficult handoffs.

Define PPBES Success

4. Develop PPBES Process Performance Goals (how to measure whether PPBES is doing what it should do for NOAA). Following are notional examples of measures that NOAA might consider given the availability of data and the cost to collect a new set of data.

- Improved communication.
- Reduced resources (people and time) spent on the process (improved efficiency).
- Reduced number of requests for documents and data.
- Improved ability to tell coherent and cohesive story (logical progression to desired end-state).
- Expanded portfolio (doing more).
- Improved ability to better satisfy stakeholder needs (doing it better).
- Analyze whether NOAA has met its mandates, why or why not, and how to improve.

5. Improve NOAA Performance Measures. PPBES should be used to foster and improve existing programmatic performance measures (e.g., Corporate Performance Measures) that show how well NOAA achieves its mission and serves the public. PPBES should be used to improve NOAA's ability to track and measure programmatic performance.

Communicate PPBES

6. Examine scope of communication in line with the scope of duties identified in the process review.

- a. Decide how far down into NOAA working knowledge of PPBES needs to go, and improve communication within and among those NOAA business units.
- b. Provide basic information on the PPBES process within NOAA and to external partners and constituents.

7. Better connect the phases of PPBES. Establish feed-backs throughout the cycle to support organizational learning within NOAA, improve transparency of decision making, and enhance understanding of the process and decisions.

Effectively Resource PPBES

8. Support the appropriate level of information management/technology in order to enable effective implementation of PPBES. Support the recommendation made to the NEP to continue work toward a more mature information system that simplifies the process and enables tracking and integration of information across phases.
 - a. E2E should be reevaluated/designed in light of needs addressed by the detailed process review of PPBES.
 - b. Provide the system with a feedback mechanism, both in database and documentation, to allow connections between B-E as well as feedback into P-P.
 - c. Determine the initial level of data that should be used to populate the E2E system in order to meet the needs of all phases of PPBES. Consider whether the core data should be from budget control tables or other sources
9. Educate/Train staff on the PPBES process so it can be more effective.
10. Review staffing levels and tailor to need (based on outcomes of the process review)
 - a. Explicitly consider the role, function, organizational position, professional series and authorities of positions associated with PPBES.
 - b. Consider the managerial function versus the coordination function.
 - c. Address professional development, burnout, reward/compensation for long hours, and succession planning needs for associated functions

Attachments³⁶

- Comments on the Recommendations in the PPBES Review Team Draft Report. Submitted to Co-chairs on 8/27/08.
- Editorial Comments on PPBES Review Team Draft Report. Submitted to Co-chairs on 8/28/08

Findings and Recommendations

The DUS's charge to the Team was to elucidate: 1) the benefits of NOAA's PPBES, 2) its costs, 3) the degree to which the former offsets the latter, and 4) options for improving the value of PPBES to NOAA. This section presents our findings (one general, 10 specific) that address the first three elements of the charge and a number of recommendations that could be considered by NOAA to address the fourth element of the charge.

³⁶ Attachments provided in Appendix 4.

The Team acknowledges that the report does not provide a quantitative cost/benefit analysis. Indeed, during the progress report to the NEP on 11 August 2008, the Team specifically informed the NEP that such an analysis would not be forthcoming. This inadequacy results primarily from the lack of comprehensive, quantified cost data (direct, indirect, and opportunity costs) and quantifiable estimates of benefits readily available to the Team.

Absent these data, the Team was unable to estimate quantifiably any cost benefit ratio. Direction provided by the NEP at that time was that pursuing a cost/benefit analysis of NOAA's PPBES was not necessary, and thus, no additional attempts to obtain the types of necessary quantitative data were made. However, the Team would argue that it has adequately captured a current view of NOAA's implementation of PPBES from the qualitative information gleaned from the questionnaires, Focus Group session, WG review and comment, NEP response to the initial findings and presentation, and review and comment of the NOAA corporate Councils and of Drs. Barzelay and Winter. Nonetheless, it is important to make clear that the interpretation and representation of those views presented in the report are those of the authors.

The Team was unable to conduct a cost-benefit analysis. However, evidence suggests that, while PPBES appears to have brought benefits to NOAA, organizational units are experiencing a strain on financial and human resources as they try to meet the demands of the system (in addition to the "normal" budgetary strains of continually increasing mission demands). There was a consistent expression by the review participants that the analytic complexity of and precision sought by the PPBES system, including the demand for data and information to satisfy the inputs and outputs of the system, is imposing fiscal, human resource, and emotional costs which are generally viewed as greater than the expected benefit of budget increases.

Regardless of any claim about benefits relative to cost, there is no question that NOAA will continue to be required to operate some type of performance-based budgeting system to comply with Federal law, policies, regulations, and societal expectations of "good government" (perhaps most importantly, GPRA). Therefore, the Team concludes – and the comments collected support – that NOAA's current PPBES should be improved, not eliminated, in order to best satisfy these requirements.

Findings and recommendations provided below are drawn from a variety of inputs, including the research instruments detailed in previous sections (questionnaires and Focus Group), the literature review, comments from the WG, the personal experiences of the Team, as well as informal discussions that Team members have had with NOAA personnel across the agency. All opinions communicated to the Team were considered, though not all were necessarily incorporated into the report. It is worth noting here that the findings derived from the experiences and perceptions of people at NOAA should not be surprising; they largely parallel the results of other agencies that have implemented PPBES (see "Lessons Learned" section in the *Background: History and Theory of PPBES* chapter).

General Finding

To the extent that it meets the goals and functions of the NOAA Administrative Order, PPBES is a valuable system for NOAA and should be maintained. However, based on this study, there is no organizationally agreed upon measure of PPBES success. As a result, there is neither universal understanding nor acceptance of the purpose of the PPBES process, even though review of the literature and of NOAA's implementation material reveals a very consistent explanation (see Background: History and Theory of PPBES, on page 11). The objective of PPBES is the intelligent allocation of scarce resources against strategic, corporate priorities, but the misperception that PPBES is a process to increase the budget persists.

In fact, simply asking, "Has the budget for your organizational unit increased (or decreased) since NOAA's adoption of PPBES?" in its questionnaire reflects the Team's own inappropriate use of budget changes as a metric for PPBES success. Because of this misperception, individual office or program interests, rather than corporate or national interests, still dominate the conversation within the PPBES process. Without modification, individual office interests will continue to dominate. However, there is the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DOC, OMB, and Congress.

By formally implementing a planning, programming, budgeting, and execution system, NOAA is attempting to do something new to its own organizational culture, and ambitious within the Federal, civilian (i.e., non-DoD) government as a whole. It is reasonable to expect challenges when embarking on such a novel and significant endeavor. Indeed, NOAA has encountered difficulties in implementing PPBES, but has responded by adjusting its system to address those challenges. Past improvements to the system include: identification of goals for a new approach to performance-based planning and budgeting system (i.e., the PRT Report); creation of a new Strategic Plan; creation of an administrative order defining the goals of its new system; creation of a program structure and two new offices to facilitate the system; and establishment and augmentation of annual schedules and milestones. These changes have been made over the short-term and, though not perfect, they have moved NOAA well along the path of its goals, which are:

- To continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- To ensure NOAA satisfies statutory and regulatory duties assigned to it;
- To attempt to satisfy the highest priority needs of NOAA's customers; and
- To improve resource utilization.

Anecdotal evidence collected during data gathering reinforces this point (see, for example, the Questionnaire Results section above, page 34) and clearly suggests that PPBES has fostered more rigorous planning and programming efforts. As one respondent explained, "[PPBES] is useful to NOAA as an organization because it seems to be bringing some credibility with external stakeholders and more transparency internally to NOAA's budget processes." In the words of another respondent, NOAA is now more "proactive rather than reactive" in terms of planning and resource allocation. In general, these gains have improved NOAA's ability to

articulate and defend its business case internally and with external stakeholders. A third respondent claimed, “DOC, Congress, and OMB seem to have a higher level of understanding of our need (independent of their ability to meet that need) and our needs are more credible.” Of the 18 persons responding to the question, “If you took part in the budgeting process prior to this Administration, would you prefer to revert to the old system?,” only 5 indicated that they would prefer the old system. With improvements, 11 of these respondents felt that PPBES had potential to help NOAA reach its goals (two persons were not familiar with the old system and so could not say).

NOAA’s approach is an excellent way to responsibly manage the public’s financial resources allocated to the agency. Moreover, this type of system is required by Federal law, executive order, supported by NOAA and Federal government leadership, and is consistent with principle of “good government.” Therefore, the Team suggests that NOAA continue PPBES to improve operational efficiency.

Specific Findings

In addition to the general finding above, the Team derived a number of specific findings, presented below in no particular order:

Culture: NOAA's culture is changing for the better because of PPBES; among NOAA's workforce (employees and contractors) there is now more openness, collegiality, cooperation, and coordination relative to planning and program development. NOAA could foster the burgeoning collegiality among individuals by facilitating the execution of plans developed through partnerships across units. However, even though NOAA’s workforce is more familiar with the analytical rigor expected within PPBES, it perceives itself as unable to deliver that rigor and thus is a workforce that, per the results of this study, is unsatisfied, frustrated, overworked, and ultimately inefficient. This is often due to issues of structure and complexity.

Cost: Implementation of NOAA's PPBES has generated direct, indirect, and opportunity costs beyond what was previously spent across NOAA on strategic planning, budget formulation, and budget execution. For example, there is now a new LO (PPI), a new Staff Office (PA&E), and new support positions for many of the GTs, Sub-Goal Teams, and Program Teams that are dedicated to developing plans, programs, and budgets for submission to NOAA. In addition, the NOAA employees who serve on the various teams do so in addition to performing the responsibilities of LO positions and are now often responsible to more than one supervisor. However, the exact costs of PPBES are difficult, at best, to determine. PPBES cost data are generally not routinely collected, and even those data that are collected are of unknown quality, are not readily available, and difficult to interpret.

As such, an accurate representation of the costs of PPBES at NOAA is beyond the capability of this study to assess based upon the data collected. A much more detailed

study would be required to capture the financial costs of PPBES at NOAA – an undertaking that has been decided against by the NEP.

Complexity: One of the most frequently-cited problems with PPBES stems from the on-the-ground running of the system. Reactions were visceral. Respondents described PPBES with words such as: cumbersome, confusing, redundant, justification to death, process heavy, esoteric, painful, inefficient, counterproductive, frustrating, chaotic, out of control, constant struggle, inflexible, make work, unwieldy, intrusive, oppressive, run amok, and a waste of time. This may not necessarily be a result of PPBES itself, but of NOAA’s implementation of it, particularly through what was perceived as an excessive number of requests for information.

Workforce: Participation in PPBES is viewed as an additional duty placed upon existing Federal employees whose job classifications do not include PPBES as a primary function. Program staff is currently supplemented by a contract workforce – some of whom may be more suitably trained in PPBES activities, but lack the resident knowledge of NOAA operations. This imposes an opportunity cost upon core mission functions and, at the same time, means that PPBES functions are not performed by specialists in program analysis; thus, the perception is that neither function is being performed adequately. In all phases, and especially at the lower levels of the organization, it is often the same people who perform multiple, redundant analytical tasks. The result is a workforce that is frustrated with the process (see “Culture” finding above).

Communication: There is a perception that PPBES has resulted in improved communication across NOAA. Although improvements are viewed within each phase of PPBES, the perception is that communication has improved mainly within the planning phase. However, the perception is that communications improvements have not been so successful across PPBES phases. Corporate intent from planning to programming to budgeting to execution is perceived as being neither stable nor transparent, and that there is insufficient feedback to those working in prior phases on how prioritization decisions are made in the current phase.

Synchronization: There is a perception that there are significant disconnects among the phases of PPBES, particularly between “PP” and “BE,” and including insufficient feedback from execution through actual appropriations back into the planning and programming cycles. Where integration has occurred, it has been primarily in the planning phase. There is no well-understood process to incorporate performance and decisionmaking feedback from the budgeting/execution phases into the new planning phase. This includes performance as indicated by performance measures as well as analyses of successful budget requests (or failures). This may be preventing the potential benefits of an integrated PPBES from being realized.

Organization: The study revealed the perception that NOAA has segregated, or has at least not sufficiently integrated, the responsibilities of those who plan and program from those who budget and execute (noting that this has occurred primarily in LOs rather than

staff offices.) Where segregation has occurred, there is the perception that those who plan and program for an activity often do not share the same concerns of those who budget and execute it. This exacerbates the problem of communications across phases and missions and the problem of a workforce that wears multiple hats and has divided portfolios. Further, it creates multiple, potentially conflicting authorities.

Information Technology: The perception exists that the on-the-ground PPBES workforce does not currently have access to a mature and truly "end to end" information system. Tracking budget elements across phases and across structures is difficult, if not impossible. Multiple, disjointed systems, either in place (CasaNOSA, PIRS, budget systems) or evolving (E2E), are presently insufficient for performing the complex analytical functions inherent in PPBES.

Implementation: PPBES process is not uniformly implemented across NOAA. Different GTs implement their roles within the PPBES process differently and therefore functionally execute those roles differently. Similarly, LOs implement their roles within and execute the PPBES process differently. These differences of implementation, that is, the differences in implementing the PPBES process between similar organizations, exacerbate the communications and complexity issues being experienced.

Compatibility: The perception exists that tradeoff analysis, which is the core of PPBES, may favor some programs over others because some programmatic outputs are easily quantified from a cost-benefit perspective and tend to do better than those outputs that are harder to quantify. In particular, this put research programs at a disadvantage. In addition, mission support and administrative functions have a more difficult time fitting into the PPBES process as implemented at NOAA because their work depends almost entirely on what the mission goals plan, program, budget, and execute.

General Recommendation

PPBES at NOAA should be improved, not eliminated. NOAA is making substantial progress toward the goals stated in NAO 216-111 and with respect to the findings of the PRT. Though we cannot determine the exact degree of this progress without metrics, the information collected in this study is more than sufficient to indicate that progress is occurring.

Participants of this review indicated that PPBES has produced the benefit of increased openness and communication. This supports the recommendation that NOAA should maintain PPBES, and validates that the system has value. Participants in this review also cited the benefits of better articulation and defense of budgets to the DOC, OMB, and Congress. This also supports the Team's assertion that the PPBES system at NOAA is successfully meeting the Agency's expectations, as well as the requirements set forth by the letter and the intent of Federal law, policies, regulations, and societal expectations of "good government." Together, these benefits support the conclusion that not only should NOAA maintain the PPBES system, but that NOAA must maintain it.

Specific Recommendations

Though NOAA is making substantial progress with PPBES, like all management and decision support systems in any organization, it is not perfect. The same respondents that so clearly indicated that PPBES needs to be maintained, also indicated that, benefits aside, PPBES, as it is implemented at NOAA, should be improved. The respondents expressed varied opinions and suggestions on how those improvements could be made and the following discussion considers those suggestions and the problems respondents hope to address through those suggestions.

It is important to acknowledge that the problems associated with NOAA PPBES are multifaceted and difficult to separate. As a result, among the recommendations articulated below there is no one recommendation that will address all of the issues identified throughout this report (many recommendations apply to more than one finding). Many of the recommendations were drawn from suggestions of questionnaire respondents, the Focus Group, and the WG (for further details on these, see the relevant sections of this report). Others were drawn from the history and theory of PPBES and from the experiences of the Team.

As a result of the discussions at the NEP, the Team was asked to provide specific recommendations it believed were simple and relatively costless to implement in the near-term (a.k.a. the so-called “low hanging fruit”), as well as recommendations it believed were the most important to implement over the long-term. However, the Team felt strongly that the recommendations had to also include the comments, responses, and recommendations collected and considered during the review.

The Team originally developed 31 separate recommendations. These 31 original recommendations were developed with two specific thoughts in mind. First, it was an effort to provide a high degree of specificity in the recommendations the Team offered to NOAA’s leadership for consideration. Second, it was to be open to and accommodate the multiple and divergent suggestions that had been offered from all participants. Throughout this study, the Team was always driven by the desire to make sure every voice was heard and to not disenfranchise any group who contributed to the PPBES review study. From the comments received from the NOAA Councils and from Drs. Winter and Barzelay, it was clear that the Team went too far. Specifically, the majority of these comments indicated that the Team developed recommendations at a level of specificity that was not supported by the data collected. In short, the Team had imparted too much of its own interpretation of how to best address the problems raised by the participants of the study.

As a result of these comments, the Team re-evaluated the recommendations originally provided in the earlier draft. The driving force in re-evaluating the recommendations was to not have the recommendation exacerbate problems that had surfaced in the review. For example, many of the complaints raised were of complexity and bureaucracy in the PPBES process. If it was believed an earlier recommendation may have addressed a specific concern, but increased overall complexity or bureaucracy, or caused problems elsewhere in the PPBES process, it would not have the desired result. Consequently, the Team developed recommendations for NOAA’s consideration at a level of specificity analogous to the level of the findings rather than

recommending specific, directive steps that NOAA should take in order to address a specific problem.

The result was a reduction in the number of recommendations from 31 to 10. Many recommendations were combined, while others were deleted. Additionally, we arranged the recommendations as answers to the four most pertinent questions that evolved from our findings:

- *What can we readily do to make NOAA's PPBES easier and more effective?*
- *How much and what kind of information and analysis are appropriate?*
- *How do we facilitate traceability between structures (program and organization)?*
- *How can alternative managerial practices facilitate NOAA's PPBES?*

The recommendations below represent a menu of possible options, which NOAA may choose to implement piecemeal or in combination. We identify an array of suggestions that alone or, more desirably, in combination, might lead to improvements in NOAA's PPBES. Given the review methods, it was not possible to prioritize the problems and recommendations objectively. Given the previously-stated limitations of this review, a more thorough analysis may be necessary before deciding to implement any of these recommendations.

Though it is beyond the scope of this review to vet the various recommendations from a cost-benefit perspective (see Appendix 3, specifically the August 11, 2008 NEP decision to not pursue the cost portions of the study), in this first set of recommendations the Team has attempted to address the question:

What can we readily do to make NOAA's PPBES easier and more effective?

To address this question, NOAA should consider the following:

1. Provide consistent corporate messaging as to the purpose of PPBES

The metric most commonly used by NOAA employees to gauge the success of PPBES - and often referenced by NOAA leadership - appears to be budget increases of individual components of NOAA. Yet this metric assumes that the benefits of PPBES accrue to NOAA (or a NOAA component) itself, rather than to the Nation that NOAA serves. If the budget increase metric did indeed accurately gauge PPBES success, one might conclude that PPBES has been successful because the NOAA budget has increased since PPBES implementation. But even in this case, many review respondents dispute that budget increases for their individual activities are attributable to PPBES, or claim that PPBES is not successful because their budget did not grow. These perspectives exemplify the complications of using budget increase as a metric.

2. Develop commensurate performance metrics for each phase of PPBES at the corporate and program/line office levels to ensure transparency, connectivity, and accountability for the end-to-end process.

There are currently no formal performance metrics of PPBES, but Section 1.02 of NAO 216-111 (Appendix 2) already defines success in a general way by laying out broad goals of PPBES:

- To continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- To ensure NOAA satisfies statutory and regulatory duties assigned to it;
- To attempt to satisfy the highest priority needs of NOAA's customers; and
- To improve resource utilization.

NOAA should explore means to make these goals measurable and tangible. There needs to be an entity responsible for developing these metrics, for re-evaluating them, and (as necessary) for updating them over time. These metrics could then be used by corporate offices to gauge the performance of the PPBES itself. Multiple line and staff offices could collaborate to create agreed upon performance metrics, in a manner analogous to that of the mercury initiative and Arctic planning initiative.

- 3. Simplify and streamline PPBES processes to reduce workload and improve the effectiveness of PPBES by tracking its costs and benefits.** PPBES is an information-intensive system, but not all of the intensity results from the process itself; some of the intensity results simply from the opportunity to ask for and offer new information. To reduce the analytical strain on staff, corporate offices, LOs, GTs, and Councils should work to coordinate their efforts to determine if requests for information are truly necessary, not redundant, and clearly lay out what information is needed. They should provide staff with sufficient time to respond to data calls completely and thoughtfully. Data collection instruments should be designed and explained in a manner that the recipient can easily understand the request and provide the information that is needed rapidly and with minimal effort. Conversely, recipients of information requests should ensure that responses contain only the information that is requested and that is necessary to answer the question.
- 4. Increase transparency of decisions made in each phase.** Decisionmakers in each phase should strive to communicate the reasons for program and budget decisions to those in previous and subsequent phases, including execution to planning, and attempt to make those decisions as transparent as possible. End-of-phase briefings, for example, could provide valuable feedback to those making budget requests in subsequent phases and years. Similarly, the PPBES IT support system could account for how and when decisions were made at each step in the budget process and why certain items were either successful or unsuccessful.

Moreover, to shed light on the level of financial commitment to implementation of NOAA corporate strategy in each phase, program portfolios (base activities and proposed alternatives) developed during the planning phase should be tracked through the programming, budgeting, and execution phases, making a decision trace available (see

How Could We Track the Success of Annual Priorities? in Appendix 5). The tracking should include the relationship to each year's AGM; the identification of any modifications, inclusion, or deletion in part or in total; and ultimate disposition as contained in the President's budget request to Congress. Such information could then be used in developing the LO AOPs and subsequent year's AGM priorities.

We understand that it is impossible to relate every decision made throughout the PPBES process to each stakeholder affected by those decisions. As with any system, there will always be members of the NOAA PPBES community who will feel disenfranchised because their questions regarding decisions impacting their specific programs are not specifically answered. That level of transparency may be difficult, if not impossible, to achieve, but that should not prevent attempts to improve transparency. NOAA should strive to better communicate the major strategic decisions of the PPBES process to the PPBES participants through the chain of command.

- 5. Provide training on the theory and implementation of PPBES broadly to staff at NOAA.** Training is essential to establishing a shared understanding of the purpose of and possibilities within PPBES. Such training should emphasize that PPBES is a tool to optimize corporate strategic performance with finite resources, not a tool to increase budgets. It should be made available to the “rank and file” as well as through all levels of managerial and program staff. The PPBES training should include techniques of performance management and strategic planning. NOAA has unique needs for performance evaluation, particularly in the domain of research and the administrative functions of staff offices. There are many techniques available for the valuation of research and other intangible, public goods. Such techniques may serve to diminish the angst that the workforce feels in not being prepared to adequately perform the duties required in PPBES.
- 6. Develop new or build upon existing “communities of practice” for NOAA PPBES.** NOAA should consider supporting a means of networking for policy and program analysis professionals at NOAA, such as professional events and discussion forums. NOAA currently relies heavily on web sites to accomplish networking. The NOAA PPBES web site could benefit from an ongoing review and, as needed, redesign the PPBES web site to facilitate such exchanges. In an effort to foster the use of common terms among PPBES participants, the renewed web site could include a PPBES terms-of-reference and a standard lexicon. It could also enable online dialog and troubleshooting of common issues.

Recommendations 2, 3, 4 and 5 are process-oriented and require continuous monitoring to assure continued improvement of PPBES.

PPBES necessarily requires more information and more analysis than the budget formulation and execution systems that predated it. The heart of PPBES are rational and comprehensive programmatic tradeoffs, which require information on all program requirements, costs, and benefits, and require time and expertise devoted to policy and program analysis. PPBES will

always demand more information and more analysis. Thus, with the second set of recommendations, the Team addresses the next question:

How much and what kind of information and analysis are appropriate?

To address this question, NOAA should consider the following:

- 7. Conduct a comprehensive PPBES process review that builds on the findings and recommendations of this report and ensures that the end-to-end process is considered in all recommended reforms.** The review should seek to capture and describe PPBES processes with the intent of standardizing them across like entities and making them simpler, more effective and efficient for all parties involved. It should attempt to account for specific information needs, the interrelation of particular PPBES products, the scheduling of tasks among offices, feedback across phases and from DOC, OMB, and Congress, as well as the particular requirements of GTs, Programs, Line and Staff Offices, Councils, and Regional Teams.

The review should result in a high-level “architecture” of PPBES business processes, inputs, outputs, and throughputs – similar to architectures for IT systems. The architecture would provide a model for the “as-is” state of NOAA PPBES, and for the envisioned “to-be” state. The “to-be” architecture should be codified in the NOAA Business Operations Manual.

The Team recommends that NOAA consider the following options when detailing the PPBES process architecture:

- Clarify and standardize the roles and responsibilities of participants. This would necessitate an analysis of current and desired PPBES process structures and accountability mechanisms.
- Incorporate Congressional appropriations from previous years into the assumptions of planning, programming, and budgeting. Consider and, as required, adjust planning and programming guidance according to current and historical Congressional appropriation trends.
- Consider implementing a two-to-four year planning cycle, as opposed to an annual cycle. Planning for every NOAA program every year may not be necessary and may not be an efficient use of resources. Lengthening the planning cycle could reduce workload and refocus efforts where needed.
- Link execution to corporate performance measures, including GPRA measures, to guide future planning, programming, and budget development.

The recommended review provides an opportunity to capture the successes and shortcomings of PPBES and to standardize successful practices among Goal Teams, Programs, and Line Offices, while modifying or eliminating inefficient practices.

Finally, the recommended review should include a business case analysis of PPBES. This business case analysis should provide a review of other systems that might be implemented as alternatives to PPBES.

- 8. Formalize the roles and responsibilities of the PPBES workforce.** As a general rule, specialization of labor increases efficiency. NOAA should consider modifying the position descriptions of those performing the duties of PPBES (over time, perhaps as existing positions within NOAA become vacant) to recognize the unique analytical expertise that PPBES requires, the opportunity costs imposed on core missions by PPBES activities, and the multiple roles of the individuals within the PPBES process.

PPBES necessarily entails a dualistic view of the agency; there must be both a program structure (defined by strategic goals and objectives) and an organization structure (defined by appropriation lines, often outside of NOAA's control). There will always be some degree of complexity involved in tracking items between "two sets of books." Thus, the third set of recommendations address the following question:

How do we facilitate traceability between structures (program and organization)?

To address this question, NOAA should consider the following:

- 9. Fully implement the information technology tools for tracking items across structures.** Develop and implement information technology tools for tracking items across structures as soon as possible. A single, "end-to-end" budget and management information system is necessary for PPBES to function effectively and efficiently. NOAA should continue work toward a mature information system that simplifies processes and enables tracking of information across phases. The findings of this study should be considered in refining user requirements of such an end-to-end information system.
- 10. Ensure consistent definition and labeling of a limited number of priorities.** If everything is a priority, then nothing is a priority. A limited number of clear, discrete priorities centrally determined by corporate NOAA, at the outset of planning, is a necessary element of PPBES. It would help focus and streamline planning by the rest of the agency, reducing the resources expended to produce lower priority alternatives. Corporate priorities established in planning should remain consistent through the subsequent PPBES phases. In identifying annual corporate priorities, NOAA should ensure that the AGM, PDM, and DOC Submittal reflect this consistency of language, such that priorities are linked directly to goals and objectives in the Strategic Plan. This would facilitate the tracking of priorities through all phases of PPBES.

PPBES does not necessarily entail matrix management; the fact that there are two structures (for the program and for the organization) does not mean that there needs to be two managerial hierarchies with distinct and often divergent cultures and vocabularies. Planning, programming, budgeting, and execution can be performed by a single hierarchy and within traditional organizational roles. The final recommendation therefore addresses the question:

How can alternative managerial practices facilitate PPBES?

To address this question, NOAA should consider the following:

- 11. Better align the program and organizational structures.** A historical look reveals that one important criterion for an agency's successful implementation of PPBES is the degree to which its program structure is parallel with its organizational structure, and thus the degree of simplicity in tracking items back and forth between them. One possible way to realign is to change the program structure (by changing strategic goals and objectives). A second way is to change the organization (by changing appropriation lines). Another possible way to realign is to change the relationship between the structures (by changing the crosswalk, that is, the "common denominators," see Appendix 5). To facilitate better alignment between structures, in the development of the next Strategic Plan, NOAA should consider more closely linking the Goal/Program structure with NOAA's execution of its authorizations and appropriations.

Appendices

Appendix 1. Background Material

NAO 216-111 (June 2007)

NOAA PLANNING, PROGRAMMING, BUDGETING, AND EXECUTION SYSTEM

NAO 216-111

Eff: 6/5/07; Iss: 6/11/07

NOAA PLANNING, PROGRAMMING, BUDGETING, AND EXECUTION SYSTEM

SECTION 1. PURPOSE AND SCOPE.

.01 This Order establishes the National Oceanic and Atmospheric Administration (NOAA) policy for allocating resources as the Planning, Programming, Budgeting, and Execution System (PPBES). This policy identifies roles and responsibilities for conducting the PPBES and authorizes the issuance of related guidance for implementation.

.02 The goal of this policy is to execute NOAA's responsibilities:

- a. to continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- b. to ensure NOAA satisfies statutory and regulatory duties assigned to it;
- c. to attempt to satisfy the highest priority needs of NOAA's customers; and
- d. to improve resource utilization.

.03 With this policy NOAA will:

- a. improve portfolio management during all phases of resource allocation through a cyclic system of interrelated NOAA-wide decision-making processes (collectively known as the PPBES);
- b. establish a planning process that allows NOAA to determine what should be done to accomplish strategic, long-term and annual priorities (this is accomplished in the Planning Phase of the PPBES and will provide clear direction for remaining phases);
- c. establish a programming process that allows NOAA to determine what can be done in the future to achieve the priorities established during strategic planning (this is accomplished in the Programming Phase of the PPBES and will provide the programmatic and fiscal basis for the NOAA budget);

- d. establish a budgeting process that allows NOAA to determine which resources will be requested in consideration of executive policies and direction, statutory and regulatory requirements, budget realities, and proper fiscal management of NOAA programs (this is accomplished in the Budgeting Phase of the PPBES and will provide the programmatic and financial details required to build and justify the NOAA budget);
- e. establish an execution process that allows NOAA to satisfy assigned statutory and regulatory duties and to deliver products and services while adhering to legal, administrative, and policy restrictions (this is accomplished in the Execution Phase of the PPBES and will guide NOAA personnel in allocating resources to approved programs in order to accomplish approved program priorities); and
- f. establish a process to ensure information from program performance and other reviews are incorporated in the PPBES decisions and the programs use the feedback provided to adjust to meet emerging conditions.

.04 This policy applies to all NOAA activities. Specific types of projects (e.g., facility and fleet construction, operation, and repair; major systems acquisition; and information technology project acquisition) are subject to additional policies and guidelines.

SECTION 2. BACKGROUND.

Federal guidance mandates efficient and effective use of resources tied to an agency's mission, goals, outcomes, and objectives. Office of Management and Budget (OMB) Circular A-11 requires agencies to maintain a decision-making process that integrates analysis, planning, evaluation, and budgeting. The Department of Commerce (DOC) Budget and Program Analysis Handbook provides guidance for preparing budget submissions and in meeting other Departmental budget reporting requirements.

SECTION 3. POLICY.

.01 NOAA's policy is to allocate resources among competing requirements through consistent and systematic, agency-wide reviews to ensure assigned statutory and regulatory duties are satisfied and optimal products and services are delivered to achieve mission goal outcomes and results. The allocation of resources will be accomplished through the PPBES, which is a requirements-based, integrated series of processes that: 1) uses NOAA's strategic vision and mission to drive annual investment and management priorities, programmatic and policy choices, and budget and organizational development; 2) provides a systematic approach to reviewing performance and progress, allocating resources optimally to satisfy NOAA's statutory and regulatory duties, and to maximize programmatic impact; and 3) identifies, analyzes, and resolves key policy, organizational, and managerial decisions that are critical to NOAA's success. NOAA's Line and Staff Offices (LO/SO) may expand upon this policy with guidance and instructions to meet individual functional and operational requirements. The following guidelines apply to the identification and validation of requirements, the allocation of resources among competing needs, and the monitoring, management, and reporting of how the requirements are met.

a. Planning. The first phase in the PPBES, Planning, identifies what should be done within the NOAA Program to achieve NOAA's strategic goals, objectives, and annual priorities. This phase helps to ensure that corporate agreement is reached on the goal-specific strategic priorities required to achieve NOAA's mission. The Planning Phase facilitates a strategic discussion and identifies and evaluates major policy, performance, managerial, or organizational changes to advance NOAA's strategic goals and objectives. The Planning Phase is highly collaborative, involving extensive input from and interaction among LOs/SOs, Goals, Programs, Councils, and stakeholders. This phase includes strategic and annual planning activities.

1. Strategic Planning. This step consists of the development of NOAA's long-term Strategic Plan. The NOAA Strategic Plan supports the DOC Strategic Plan and provides the organization's long-term corporate vision. Periodic reviews of the NOAA Strategic Plan are conducted to ensure consistency with DOC's Strategic Plan and incorporate changes in NOAA's external environment, stakeholder input, legislative and regulatory mandates, Administration policy priorities, accomplishments to date, and related factors.

2. Annual Planning. This step includes the review and adjustment of programmatic and organizational priorities by reviewing the long-term goals and objectives outlined in the NOAA Strategic Plan in the context of current trends. An annual assessment of how best to accomplish NOAA's corporate priorities is conducted.

b. Programming. The second phase in the PPBES, Programming, entails detailed analyses of the Planning Phase products and the development of a fiscally-balanced NOAA Program. The NOAA Program optimizes NOAA's ability to meet its corporate priorities within fiscal guidelines approved by the Under Secretary of Commerce for Oceans and Atmosphere (Under Secretary). The Programming Phase allows leaders to look across the organization and apply effort and resources in areas where NOAA can satisfy the greatest need and make the greatest impact. Programming provides the programmatic and fiscal basis for the NOAA budget and is conducted in two steps.

1. Program Review. This step compares current capabilities and capacities with those needed to fully achieve NOAA requirements. This analysis underpins the program development.

2. Program Development. The second programming step consists of the development and approval of the NOAA Program. The NOAA Program is an integrated, fiscally-balanced, 5-year plan. This plan shapes future NOAA capabilities and capacities to achieve NOAA's strategic goals.

c. Budgeting. The third phase in the PPBES, Budgeting, builds on the NOAA Program to include the detailed resource requests that will be included in NOAA's annual budget submission and develops justification documents to support NOAA's segment of the President's request. Budgeting provides a defensible financial plan and is conducted in two steps.

1. Formulation. This step determines the resource requests that will be included in NOAA's budget request. A detailed review of LO/SO budget plans is conducted to ensure ability to

execute and consistency with the NOAA Strategic Plan and NOAA Program. Budget formulation results in NOAA leadership resource allocation decisions and approval of the NOAA Budget Request Submission to DOC.

2. **Justification.** The second budgeting step supports the President in meeting the legal requirement to submit a budget to Congress annually. Congress considers agency requests and uses the information included in the budget justification material to determine resource allocation among competing priorities. This PPBES phase provides required and necessary information to all oversight bodies (DOC, OMB, and Congress) that review the NOAA budget request.

d. **Execution.** The fourth and final phase in the PPBES, Execution, is critical to ensuring that NOAA satisfies assigned statutory and regulatory duties, and delivers the products and services that have been planned, programmed, budgeted, and approved through the justification process. This phase includes program performance and fiscal management.

1. **Program Performance.** This step consists of the responsible LO/SO and program managers ensuring that programs are being carried out as authorized and appropriated. Program performance is reviewed using metrics (Corporate Performance Measures and planned-versus-actual financial execution) to assess program activities relative to established targets. Execution data are essential for the NOAA Strategic Plan and annual planning as well as the NOAA Program. The performance review evaluates the effectiveness of the current program, identifies requirements for new programs or efforts, and examines program management and administration.

2. **Fiscal Management.** This step consists of application of appropriate controls to make fiscal resources available to NOAA executing officials and of annual financial program closeout activities, which ensure the annual audit and financial reporting take place according to federal and DOC requirements.

.02 To maintain the integrity and confidentiality of the governmental deliberative process and to assist in maintaining the effectiveness of competition in the contract award process, many of the PPBES documents and much of the information in support databases may not be disclosed outside DOC and other Federal Agencies (e.g., OMB) directly involved in the NOAA resource allocation process. The PPBES documents that are internal and used in the deliberative process are, therefore, marked as not releasable under the Freedom of Information Act (Exemption 5 – Deliberative Process Privilege).

SECTION 4. SUPPLEMENTAL GUIDANCE.

.01 The NOAA Business Operations Manual provides detailed descriptions of the processes that support this Order. Those processes apply to all NOAA.

.02 Guidance on the PPBES deliverables, dates, and deadlines is issued annually by the organizations with primary responsibility for each phase of the PPBES.

SECTION 5. RESPONSIBILITIES.

.01 The Under Secretary determines when periodic review of the NOAA Strategic Plan will occur and provides final approval of the NOAA Strategic Plan, annual planning and fiscal guidance, the NOAA Program, and the NOAA Budget Submission.

.02 The Deputy Under Secretary for Oceans and Atmosphere (Deputy Under Secretary) manages Execution Phase reporting and evaluation, and provides final approval of the annual execution plans and program adjustments throughout the fiscal year.

.03 The NOAA Executive Council (NEC) provides information and counsel to the Under Secretary throughout the PPBES. The NEC approves the selection of Goal Team Leads.

.04 The NOAA Executive Panel (NEP) provides information and counsel to the Deputy Under Secretary and the NEC throughout the PPBES. The NEP recommends Goal Team Leads to the NEC.

.05 The NOAA Councils provide advice and counsel through all phases of the PPBES.

.06 The Assistant Administrator for Program Planning and Integration (PPI) shall:

- a. manage the Planning Phase of the PPBES;
- b. maintain the Business Operations Manual;
- c. issue the Strategic Plan and annual planning guidance;
- d. approve the selection of matrix program managers and coordinate the selections of Goal Team Leads and non-matrix program managers to conduct the PPBES activities;
- e. prepare and communicate the results of the Planning Phase;
- f. co-lead, with the NOAA Chief Financial Officer (CFO), the management of NOAA's Corporate Performance Measures; and
- g. co-supervise, with the designated LO/SO, the matrix program managers.

.07 The Director, Office of Program Analysis and Evaluation (PA&E), shall:

- a. manage the Programming Phase of the PPBES;
- b. lead development of the NOAA Program and record the decisions made;

- c. prepare and communicate the results of the Programming Phase;
- d. submit the approved NOAA Program to the NOAA CFO; and
- e. provide independent analysis throughout the PPBES.

.08 The NOAA Chief Financial Officer (CFO) shall:

- a. manage the Budgeting Phase of the PPBES;
- b. support the development of the NOAA Program and the financial and program close-out elements of the Execution Phase;
- c. manage budget and annual performance plan development and submission to DOC and subsequent defense, reviews, and reports;
- d. manage, in coordination with the NOAA Office of Legislative Affairs, interaction with the Legislative Branch during the Congressional Budget Review;
- e. prepare and communicate the results of the Budgeting Phase; and
- f. co-lead, with PPI, the management of the NOAA Corporate Performance Measures.

.09 Assistant Administrators of NOAA Line Offices (LO) and Directors of NOAA Staff Offices (SO) shall:

- a. support the requirements of this policy and apply the PPBES within functional and organizational areas of responsibilities;
- b. provide leadership in the delivery of products and services and fulfillment of mission responsibilities;
- c. provide support to program managers, goal teams, and councils in fulfilling their responsibilities;
- d. supervise the program managers and co-supervise the matrix program managers;
- e. nominate and approve the selection of program managers and nominate Goal Team Leads and matrix program managers to conduct the PPBES activities;
- f. oversee execution of funds and ensure programs are properly managed; and
- g. report the status of program execution.

.10 Goal Team Leads shall:

- a. support the requirements of this policy and apply the PPBES within assigned organizational responsibilities;
- b. serve as principal coordinators to ensure a consistent NOAA message to external partners and stakeholders (i.e., local, state, regional, national, and international) for the assigned goal; and
- c. coordinate assigned programs and recommend changes throughout the PPBES.

.11 Program managers, including matrix managers, shall:

- a. support the requirements of this policy and apply the PPBES within assigned organizational responsibilities; and
- b. evaluate and report program performance.

SECTION 6. DEFINITIONS.

.01 Corporate Performance Measures (CPM) – performance measures at the Under Secretary and senior management level that help ensure the organization is moving towards achieving strategic planning goals, outcomes, and organizational priorities. Corporate Performance Measures include Government Performance and Results Act (GPRA) measures.

.02 Council – a formally established advisory body that reports to the NOAA Executive Council (NEC) or NOAA Executive Panel (NEP).

.03 Goal – an elaboration of the agency mission statement, developing greater specificity about how an agency will focus its mission. Goals may be further divided in to Sub-Goals. Each NOAA Goal or Sub-Goal is led by an appointed Goal Team Lead or Sub-Goal Lead.

.04 Matrix Program – a program in the NOAA program structure where the mission is supported by resources from multiple Line Offices, or when the NEC designates them as matrix.

.05 NOAA Program – an integrated, fiscally balanced, 5-year plan. This plan is based on the Goal and Sub-Goal level plans and shapes future NOAA capabilities and capacities to achieve NOAA's strategic goals.

.06 Portfolio Management – the processes, practices, and specific activities to perform continuous and consistent evaluation, prioritization, budgeting, and finally selection of investments that provide the greatest value and contribution to the strategic interest of the organization. Through portfolio management, NOAA can explicitly assess the tradeoffs among competing investment opportunities in terms of their benefits, costs, and risks.

.07 Program – a focused set of activities designed to achieve a specific goal outcome(s) of the NOAA Strategic Plan. Each program is led by an appointed program manager.

SECTION 7. REFERENCES.

- .01 President's Management Agenda.
- .02 Program Assessment Rating Tool.
- .03 Office of Management and Budget (OMB) Circular A-11.
- .04 Government Performance and Results Act (GPRA) of 1993.
- .05 Department Administrative Order (DAO) 208-3, Major Systems Acquisitions for the Department of Commerce.
- .06 DAO 201-45, Departmental Oversight of Major Systems.
- .07 DOC Budget and Program Analysis Handbook.
- .08 NOAA Administrative Order (NAO) 216-108, Requirements Management.
- .09 NAO 217-104, Facility Capital Planning and Project Management Policy.
- .10 NOAA Strategic Plan.
- .11 NOAA Business Operations Manual.
- .12 NOAA Manual for Preparation of Unique Adjustments-To-Base.

SECTION 8. EFFECT ON OTHER ISSUANCES.

None.

/Signed/

Under Secretary of Commerce for
Oceans and Atmosphere

Offices of Primary Interest:
Program Planning and Integration
Program Analysis & Evaluation
Office of the Chief Financial Officer

Appendix 2. Review Process Documents

Implementation Plan

Planning, Programming, Budgeting and Execution System Review: Tentative Implementation Plan

**Submitted by Co-Chairs
Gary Matlock and Michael Abreu**

June 17, 2008

Working Group Oversight

The evaluation co-chairs, Gary Matlock and Michael Abreu, will consult with a Working Group who will guide the scope and direction of the evaluation. To populate the Working Group the co-chairs will solicit nominations for membership from the NOAA Executive Panel (NEP). The Working Group will be identified and convened by July 1, 2008.

The criteria for recruiting Working Group members are as follows:

- Individuals who are the closely engaged in the PPBES process
- Individuals having significant experience with program planning and budgeting in NOAA
- Individuals who are representative of the most typical (as opposed to a unique) experience with PPBES in NOAA
- Individuals who are representative of the many organizational perspectives
- Individuals who have time to commit to this activity in the immediate future

Once the PPBES Evaluation Working Group is populated and convened, the co-chairs will ask the group to help narrow the scope of the evaluation. After defining the research questions, the Working Group will then assist with finalization of the evaluation methodology.

Working group members will also advise and, to the extent practicable, assist with data acquisition. Further, the Working Group will engage wider NOAA in the evaluation process, formally and informally, to improve participation from stakeholders so that the evaluation is successfully executed. The co-chairs will keep the Working Group apprised of the progress of the review.

Research Design

The co-chairs will make every effort to obtain diverse and representative views from across NOAA's organizational functions.

Research Questions

What are the benefits of PPBES to NOAA? The 2002 NOAA Program Review Team (PRT) report stated the need for: a) improved integration across Line Offices; b) increased efficiency; c) more management visibility; d) increased responsiveness to customer needs, and e) support for the President's Management Agenda. How well has PPBES, as implemented, realized these benefits? Has the budget for your organizational unit³⁷ increased since NOAA's adoption of PPBES? Have you experienced any other benefits implementing PPBES?

³⁷ For an Assistant Administrator, the organizational unit would be the Line Office. For a Goal Team Lead, the organizational unit would be the Mission Goal. Program Manager, Program. Regional Team Lead, Region.

What are the direct and indirect costs of PPBES to NOAA? Within your organizational unit, can you estimate the monetary and personnel costs of PPBES? Has there been additional organizational and technical infrastructure required to sustain PPBES? Has there been an opportunity cost of PPBES work with respect to programmatic work? Have you incurred any other costs implementing PPBES?

Are the costs of PPBES acceptable relative to the benefits? For your organizational unit, have the benefits of implementing PPBES outweighed the costs? Why or why not? Please provide examples.

How can NOAA improve its implementation of PPBES? What changes, if any, would you suggest for improving the implementation of PPBES? Can you estimate the costs and benefits of alternative approaches? Given the costs and benefits, how acceptable are these alternative approaches when compared to PPBES as it is presently implemented?

Data Gathering

The co-chairs will employ the following research methods to collect the data needed for an adequate evaluation of NOAA's PPBES, as implemented.

1) Solicitation of feedback from persons responsible for the PPBES process.

The co-chairs will solicit input about PPBES from all persons from the following groups:

- Goal Leads
- Sub-Goal Leads
- Program Managers
- Assistant Administrators
- Council Chairpersons
- Staff Office Directors
- Chief Financial Officers
- Regional Team Leads

Input will be solicited by issuing a questionnaire via email to each person identified.

2) Monetary cost and benefit data will be requested from the NOAA CFOs (including contractor and infrastructure costs of the PPBES process). The Working Group will determine how to operationalize cost and benefit variables.

Data Analysis

- Cost-Benefit Analysis-We will conduct an analysis of the cost of PPBES compared to the benefits, primarily relying on time series data. This analysis will compare the cost versus benefits between Line Offices and Programs, as well as compare NOAA to other federal agencies.
- Analysis of Stakeholder Perceptions, Beliefs and Attitudes-We will analyze the input from the feedback solicitation by identifying major trends in perceptions related to the acceptability, satisfaction, efficiency, cost, and benefits of PPBES.

Development of Alternatives

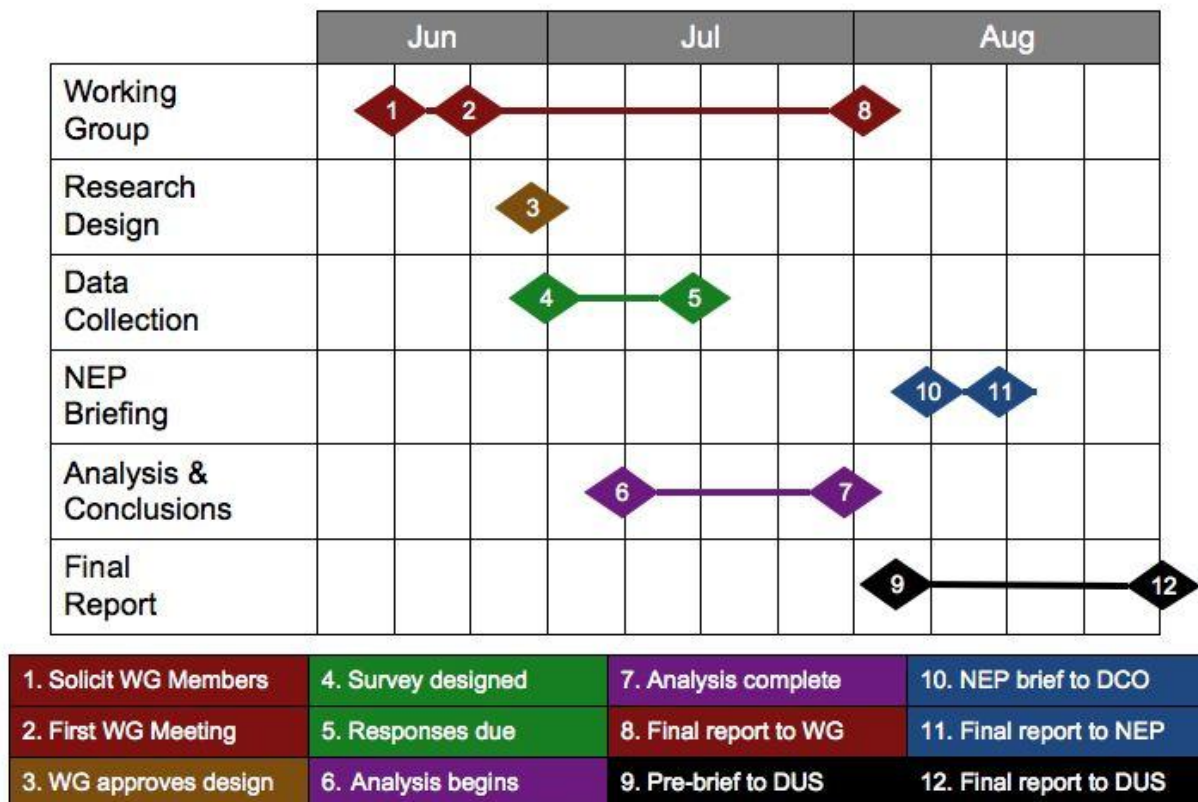
We will deliver a set of alternative proposals describing how the implementation of PPBES might be altered, if at all, including a discussion of the anticipated benefits and costs related to any changes in implementation resulting from the review. If possible, we will present a model of PPBES as it is presently implemented, and then offer a series of models depicting the range of possible alternative implementation strategies, from “no PPBES” to “no change to the existing PPBES.”

Development of Recommendations

After the suite of alternative proposals to implementing PPBES has been finalized, the Working Group may develop a list of recommendations to the NEP and DUS Glackin. The Working Group will choose one alternative approach, specifying the positive attributes of that alternative more particularly.

Timeline

Preliminary Timeline of PPBES Review



PPBES Review: Evaluation Group Descriptions

SENIOR-LEVEL QUESTIONNAIRE GROUP

Role: Provide “strategic” perspectives from the organization

Composition: 100+, questioned via email

Solicitation: Each of the following shall receive a questionnaire:

- Line Office Assistant Administrators
- Staff Office Directors
- Mission Goal Team Leads
- Mission Support Sub-Goal Team Leads
- Program Managers
- Council Chairs (mutually exclusive)
- Line Office Chief Financial Officers
- Regional Team Leads

WORKING GROUP

Role: Clarification of data, investigations and research associated with data collection and validation, vetting of findings and conclusions

Composition: 23 total, approved by DUS and NEP

Solicitation: Each of the following shall nominate one representative from their respective organizations:

- Line Office Deputy Assistant Administrators
- Staff Office Deputy Directors
- Mission Goal Team Leads
- Mission Support Sub-Goal Team Leads

EXECUTION-LEVEL FOCUS GROUP

Role: Provide “tactical” perspectives from the organization

Composition: 15 or less

Solicitation: Invitational (for example, to pre-existing cross-line PPBES “Lunch Bunch”)

Email Accompanying PPBES Feedback Questionnaire

Dear COLLEAGUE:

NOAA implemented the Planning, Programming, Budgeting, and Execution System (PPBES) based on recommendations of the 2002 NOAA Performance Review Team (PRT). We adopted this system to achieve compliance with external demands for improved strategic management and performance-based budgeting, as set forth in the President's Management Agenda and Government Performance and Results Act.

Initiated in FY 2005, NOAA PPBES will complete its third full cycle, covering all four phases of the system, at the end of FY 2008. With this experience in place, it is timely to gauge the efficiency and effectiveness of this system relative to the Vice Admiral's stated goals in implementing the PRT's recommendations:

- a) Improved integration across Line Offices
- b) Increased efficiency
- c) More management visibility
- d) Increased responsiveness to customer needs
- e) Support for the President's Management Agenda.

The purpose of this evaluation is to identify lessons learned and opportunities for improvement.

We are contacting you because your thoughtful feedback related to NOAA's PPBES is critical to the success of this evaluation. We hope that you will take time from your busy schedule to answer the questions on the attached form. Before considering these questions, however, it is important to provide some scope to the term "PPBES."

In abstract, PPBES is a comprehensive budgeting system that is informed by thoughtful planning with respect to pre-defined objectives, and previous performance with respect to those objectives. It should enable the classification of government activity by goals and objectives, the comparison of costs with outcomes and the exploration of alternative means of achieving outcomes, and long range planning of government programs.

As defined in the PPBES NOAA Administrative Order (NAO 216-111), PPBES is a requirements-based, integrated series of processes that:

- Uses NOAA's strategic vision and mission to drive annual investment and management priorities, programmatic and policy choices, and budget and organizational development;
- Provides a systematic approach to reviewing performance and progress, allocating resources optimally to satisfy NOAA's statutory and regulatory duties, and to maximize programmatic impact; and

- Identifies, analyzes, and resolves key policy, organizational, and managerial decisions that are critical to NOAA's success.

As implemented at NOAA, PPBES has become synonymous with other recommendations of the PRT, including matrix management, specific mission goals, the roles of councils, etc. Strictly speaking, these factors are not components of PPBES or other performance-based budgeting and management systems in their theoretical forms. However, we encourage you to consider PPBES *as it is implemented at NOAA*, which includes the ancillary management reforms initiated after the 2002 PRT and those that have since evolved within NOAA's PPBES framework.

Again, your contribution to this evaluation is extremely important. Therefore, we hope that you will take a few moments to respond to the attached questions based on your vantage point(s) in the organization and in relation to your role(s) in PPBES.

If you have questions or concerns about the form or the evaluation process, please do not hesitate to contact Gary Matlock (301-713-1622 x211) or Michael Abreu (301-713-9477). Thank you for your time and participation in the evaluation.

Sincerely,

Gary Matlock and Michael Abreu

PPBES Evaluation Feedback Form

Please respond to the following questions based on your vantage point(s) in the organization and in relation to your role(s) in PPBES. Please return the completed form to Avery Sen at avery.sen@noaa.gov by July 11, 2008. If you have questions or concerns, please feel free to contact Avery at 301-713-1622 x203.

1. How many years have you worked at NOAA? (Provide a number)

2. Prior to FY2005, were you involved in NOAA-wide program planning or budgeting exercises? (Yes/No)

3. How many years have you worked within each phase of PPBES at NOAA and, if applicable, another government agency? (Provide a number)

	NOAA	Other Gov't Agency
Planning		
Programming		
Budgeting		
Execution		

4. On average, what percentage of your time per year is spent on activities related to each phase of PPBES at NOAA?

Planning	
Programming	
Budgeting	
Execution	

For questions 5-8, please record your opinion and impression of PPBES as it is implemented at NOAA, based on your own experience. If you have multiple roles in the PPBES process, such as a Goal Team member and Program Manager, please associate your responses with these different perspectives. We encourage you to provide specific data, anecdotal evidence or examples to illustrate your comments and recommendations.

5. What are the benefits of PPBES to NOAA?

How well has PPBES, as implemented, realized the benefits envisioned by the PRT? Has the budget for your organizational unit³⁸ increased (or decreased) since NOAA's adoption of PPBES? Has NOAA's performance improved since its adoption of PPBES? Have you experienced any other benefits implementing PPBES?

6. What are the direct and indirect costs of PPBES to NOAA?

Within your organizational unit (or units, if you have multiple roles in the PPBES process), can you estimate the direct monetary and personnel costs of PPBES? Has there been additional organizational and technical infrastructure required to sustain PPBES? Has there been any opportunity cost of PPBES work with respect to conducting the ultimate work of your program? Have you incurred any other costs implementing PPBES?

7. Are the costs of PPBES acceptable relative to the benefits?

For your organizational unit - and with respect to your answers to the questions 5 and 6 above - have the benefits of implementing PPBES outweighed the costs? Why or why not? Please feel free to provide examples.

8. How can NOAA improve its implementation of PPBES?

What changes, if any, would you suggest for improving the implementation of PPBES? Can you estimate the costs and benefits of alternative approaches to NOAA's implementation of PPBES? Given the costs and benefits, how acceptable are these alternative approaches when compared to PPBES as it is presently implemented? If you took part in the budgeting process prior to this Administration, would you prefer to revert to the old system?

³⁸ For an Assistant Administrator, the organizational unit would be the Line Office. For a Goal Team Lead, the organizational unit would be the Mission Goal. Program Manager, Program. Regional Team Lead, Region.

PPBES Working Group Solicitation and Welcome Emails

----- Original Message -----

Subject:Solicitation for Working Group Members

Date:Mon, 30 Jun 2008 13:50:31 -0400

From:Gary C. Matlock <Gary.C.Matlock@noaa.gov>

To:John Oliver <John.Oliver@noaa.gov>, Craig Mclean <Craig.Mclean@noaa.gov>, Paul N Doremus <Paul.N.Doremus@noaa.gov>, William Corso <William.Corso@noaa.gov>, Vickie Nadolski <Vickie.Nadolski@noaa.gov>, Charles S Baker <Charles.S.Baker@noaa.gov>, Steven Barnum <Steven.Barnum@noaa.gov>, Michael Crison <Michael.Crison@noaa.gov>, Steve Murawski <Steve.Murawski@noaa.gov>, George Smith <George.Smith@noaa.gov>, William Broglie <William.Broglie@noaa.gov>, Tajr Hull <Tajr.Hull@noaa.gov>, Michael Tanner <Michael.Tannster.J.Koblinsky@noaa.gov>, BrDaniel L. Clever" <DanieMichael.Abreu@noaa.gov>, Avery Sen <Avery.Sen@noaa.gov>, Theresa Goedeke <Theresa.Goedeke@noaa.gov>

Dear Colleague,

As part of the PPBES Review requested by DUS Glackin, we will establish a Working Group to assist us in clarifying data, conducting further inquiry and research associated with data collection, and in vetting the findings and conclusions of the review.

To compose the Working Group, the DUS has agreed to our proposal to solicit one appointee from each Line Office Deputy Assistant Administrator, Staff Office Deputy Director, Mission Goal Team Lead, and Mission Support Sub-Goal Team Lead. A Working Group of about 23 members would result.

We desire to have a group small enough to be effective, but large enough to represent the diversity of organizational experiences and views across NOAA as broadly as possible. This approach will also avoid a lengthy process of first soliciting nominations, then selecting a subset of those nominations. Finally, it is our view that you are in the best position to make sure that the interests of NOAA are served by selecting the individual you would like to represent your organization.

To establish a Working Group within the deadline we face, we respectfully request that you provide us the name of a nominee by close of business July 2, 2008.

Sincerely,

----- Original Message -----

Subject: Welcome to the PPBES Evaluation Working Group

Date: Mon, 14 Jul 2008 16:12:43 -0400

From: Gary C. Matlock <Gary.C.Matlock@noaa.gov>

To: Christos Michalopoulos <Christos.Michalopoulos@noaa.gov>, John Beeman <John.Beeman@noaa.gov>, Aimee Devaris <aimee.devaris@noaa.gov>, Elizabeth Davenport <Elizabeth.Davenport@noaa.gov>, Michael Crison <Michael.Crison@noaa.gov>, Barry Thom <Barry.Thom@noaa.gov>, Emily Menashes <Emily.Menashes@noaa.gov>, Bob Stockman <Bob.Stockman@noaa.gov>, John A Jensen <John.A.Jensen@noaa.gov>, Brook H Davis <Brook.H.Davis@noaa.gov>, Ken Jones <Ken.Jones@noaa.gov>, Ellen L Mecray <Ellen.L.Mecray@noaa.gov>, Barbara B Boyd <Barbara.B.Boyd@noaa.gov>, Kevin S Amos <Kevin.S.Amos@noaa.gov>, Susan Ware-Harris <Susan.Ware-Harris@noaa.gov>, Neil Christerson <Neil.Christerson@noaa.gov>

CC: Matt.Hildebrandt <Matt.Hildebrandt@noaa.gov>

Dear NOAA PPBES Evaluation Working Group Member:

First, we would like to take this opportunity to thank you for agreeing to participate in this evaluation. We know that you have many demands on your time; so, we appreciate your willingness to contribute to this effort.

Your role as a Working Group member is extremely important. With the approval of the NOAA Deputy Undersecretary (DUS) and the NOAA Executive Panel (NEP), we have formed the Working Group to help guide the scope and direction of the evaluation, provide clarification on the data gathered, and to vet the findings and conclusions of the evaluation.

We are attempting to schedule a meeting of the Working Group for this coming **Thursday (July 17, 2008)**. We realize the notice is short, and your schedules may not allow your attendance, but we just have no choice. Time is not a luxury we've been provided. So, for those of you who may not be able to join us, we'll follow up with you after the meeting. As soon as we have the logistics resolve, we'll be back in touch.

To orient you a bit to the process, we are following the "Planning, Programming, Budgeting and Execution System Review: Tentative Implementation Plan" (attached) as modified based upon conversations with DUS Mary Glackin to reach more people across NOAA, such as a Focus Group and a FMC manager stakeholder meeting.

For your information, we have attached a few other documents that you might find helpful:

- Charge for the PPBES Review issued by DUS Mary Glackin
- PPBES Evaluation Feedback Form
- 2002 NOAA PRT
- NAO 216-111

Finally, at this time we invite you to submit any documents you have or you consider potentially useful for the purposes of this evaluation. For example, if your office has conducted its own review of PPBES and you have a final report, we would appreciate receiving a copy of the report. For any documents that you submit, however, please provide a short paragraph describing its significance to this NOAA-wide PPBES Evaluation. As mentioned previously, we have very little time to complete this review, so your cooperation in this regard is greatly appreciated.

Again, welcome to the NOAA PPBES Evaluation Working Group. We look forward to working with you and will be in touch shortly. In the meantime, if you have questions or concerns, please do not hesitate to contact Gary Matlock (301-713-1622 x211) or Michael Abreu (301-713-9477). Thank you for your time and participation.

Sincerely,

Gary Matlock and Michael Abreu

Appendix 3. Preliminary Conclusions and Comments on Drafts of Report

The review and commenting process for the draft final report was broad and quite rigorous. All comments received by the Review Team were carefully and systematically considered, and affected subsequent drafts of the report.

As previously stated, comments on the first draft of the final report were solicited from the PPBES Review Working Group. These comments were considered and changes to the report based on these comments were reflected in subsequent drafts of the final report. For a detailed account of the WG's recommendations and comments (see the *Working Group* section below).

At the request of the NEP, the Team invited review and comments from the NOAA Councils, as well as from Drs. Michael Barzelay and Sidney Winter, who were conducting a parallel, external case study of strategic management reform at NOAA. The Team sent draft two of the final report to the Councils and Drs. Barzelay and Winter for comment on 05 September 2008 with a due date of 19 September 2008.

The Team received comments from the following NOAA Councils, which can be found below:

- Chief Financial Officer Council
- Ocean Council
- Education Council
- Research Council
- Observing Systems Council

We also received verbal comments from Drs. Barzelay and Winter in a joint meeting with them, the Team, and representatives from CFO, PA&E, and PPI staff on 26 September 2008. The Team used all of this feedback to produce a third and final draft for delivery to the NEP.

NOAA Executive Panel Response to Initial Findings (11 August)

The Review Team brief the NOAA Executive Panel (NEP) on the preliminary findings of the PPBES review on 11 August 2008. In response to the briefing, the NEP issued the following decisions and actions:

1. Planning Programming, Budgeting & Execution System (PPBES) Study Report:

Mike Abreu (NESDIS) presented preliminary findings and alternatives from a review of NOAA's PPBES being conducted by Gary Matlock and Michael Abrue on behalf of the NEP in response to charge from DUS.

Decisions:

- Finalize the PPBES report, to include recommendations.
 - Do not pursue additional costing portions of the study.
 - Focus on actionable recommendations (i.e., move annual guidance memos to beginning of the cycle).
 - Ensure the report is publicly vetted within NOAA.
 - Involve NOAA Councils in reviewing draft recommendations before submission to NEP.
- Focus on adding stability to the process.

Action:

- Provide DUS the final PPBES report. Point of contact: Gary Matlock and Michael Abreu. Due date: Nov 7, 2008.

The Team integrated substantive recommendations into the first draft of the report and added all the additional steps in the report review and commenting process as requested by the NEP.

As part of the process for obtaining unstructured comments for use in the development of Draft 1 of the report, we solicited all members of the NEP for any comments, thoughts, suggestions, etc. they might want to offer at the outset of the study. However, no responses were provided.

Findings and Recommendations of Draft 1 (21 August)

The findings in recommendations in this section are drawn from a variety of inputs, including the research instruments detailed in previous sections, the literature review, the personal experiences of the PPBES review team, as well as informal discussions that team members have had with NOAA personnel across the agency. Findings and recommendations are in no particular order, and recommendations represent a menu of possible options, which may be implemented piecemeal or in combination.

GENERAL FINDING

At NOAA, there is neither universal understanding nor acceptance of the purpose of the PPBES process. The perception persists that PPBES is a process to manage wealth (i.e., increase the budget), instead of the intelligent allocation of scarce resources against strategic, corporate priorities. Consequently, individual office or program interests, rather than corporate or national interests, still dominate the conversation. Without modification, individual interests will continue to dominate. However, there is also the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DoC, OMB, and Congress.

Recommendations:

- **Corporate NOAA shall provide training through courses or workshops on the functions of PPBES as a performance management tool.** This training should be made available to all levels of management, from lower and mid level managers through program managers, goal team and sub-goal team leads, staff office directors, DAAs and AAs as well as their staffs.
- **Corporate NOAA shall amend NAO 216-111 to include performance metrics of PPBES itself.** (See Appendix 1.) Sections 1.02 and 1.03 of this document already define success in a general way by laying out broad goals and outcomes of PPBES, but these should be made measurable and tangible. These metrics can then be used to gauge the performance of the corporate offices (PPI, PA&E, and CFO) within the annual PPBES process.
- **PPI, PA&E, and CFO shall conduct a joint review of the PPBES process, culminating in a single business process model of PPBES.** The review should seek to make the process more effective and efficient through a collective assessment of information needs, the interrelation of PPBES products, the scheduling of tasks, feedback across phases and from DoC, OMB, and Congress, as well as the particular requirements of Goal Teams, Programs, Line and Staff Offices, Councils, and Regional Teams. Annual adjustments to the resulting business process model, to the extent it requires adjustment, shall be made available to the agency prior to the beginning of planning phase.

CULTURE

NOAA's culture is changing for the better because of PPBES. Among NOAA's workforce (employees and contractors) there is now more openness, collegiality, cooperation, and

coordination relative to planning, program development, and budget execution. However, even though NOAA's workforce is more familiar with the analytical rigor expected within PPBES, it perceives itself as unable to deliver that rigor and thus is a workforce that is unsatisfied, frustrated, overworked, and ultimately inefficient.

Recommendation:

- **Corporate NOAA shall require and provide NOAA Leadership to attain training in accredited courses or workshops on performance management.** Recipients of this training shall include Assistant Administrators, Deputy Assistant Administrators, Staff Office Directors, Goal Team Leads, Program Managers, and their respective staffs.

BUDGET

There is a perception that PPBES success is synonymous with increasing budgets, rather than improved performance in core missions. Where budgets have not grown, there is the perception that PPBES has not produced desired results. However, where budgets have grown, there is the perception that increases are not directly attributable to PPBES. However, regardless of the budget result, there is also the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DoC, OMB, and Congress.

COST

Implementation of NOAA's PPBES has generated direct, indirect, and opportunity costs beyond what was previously spent across NOAA on Strategic Planning, Budget Formulation, and Budget Execution. For example, there is now a new Line Office (PPI), a new Staff Office (PA&E), and new support positions for many of the Goal Teams, Sub-Goal Teams, and Program Teams that are dedicated solely to the development of Plans, Programs, and Budgets for submission to NOAA. In addition, the NOAA employees who serve on the various Teams do so in addition to performing the responsibilities of Line Office positions and are now responsible to more than one supervisor. However, the exact costs of PPBES are difficult, at best, to determine. PPBES cost data are generally not routinely collected, and even those data that are collected are of unknown quality, are not readily available, and difficult to interpret. If an accurate representation of costs are required, a much more detailed study needs to be commissioned to capture the financial costs of PPBES at NOAA.

Recommendations:

- **Commission in-depth analysis to determine fiscal and personnel resources to appropriately resource the functions necessary for PPBES.**
- **Reduce the workload required for participation in NOAA PPBES by simplifying and streamlining the NOAA PPBES process.** See Complexity recommendations below.
- **Create dedicated staff positions filling them with personnel particularly qualified to fulfill the roles and functions within NOAA PPBES.** See Workforce recommendations below.
- **Subsidize participation of small, resource-challenged programs and offices in NOAA PPBES so that they may be more competitive with larger programs.** This might be accomplished by creating one dedicated PPBES staff position for several small

programs, with the costs covered by Corporate NOAA. This person might sit within PPI or PA&E.

- **Develop standardized record keeping protocols for use in all NOAA units to track costs related to participation in NOAA PPBES.**

COMPLEXITY

One of the most frequently cited problems with PPBES stems from the on-the-ground running of the system. Reactions were visceral. Respondents described PPBES with words such as: cumbersome, confusing, redundant, justification to death, process heavy, esoteric, painful, inefficient, counterproductive, frustrating, chaotic, out of control, constant struggle, inflexible, make work, unwieldy, intrusive, oppressive, run amok, and a waste of time. This may not necessarily be a result of PPBES itself, but of NOAA's implementation of it, particularly an excessive number of requests for information.

Recommendations:

- **Corporate offices, Goal Teams, Programs, and Councils should coordinate to limit excessive, often duplicative requests for information.** These bodies should endeavor to request only the information that is truly necessary to reduce the analytical strain on staff. They should provide staff with sufficient time to respond to data calls for completely and thoughtfully. Data collection instruments should be conceived, designed, and explained in a manner that the recipient can easily understand the request and provide the information that is needed with minimal effort.
- **Incorporate congressional appropriations from previous years into the assumptions of planning, programming, and budgeting.** Consider and, as required, adjust planning and programming guidance according to current and historical Congressional appropriation trends.
- **Provide a "lowest common denominator" to the crosswalk between Program Structure and Appropriation Structures.** The lowest common denominator can be placed at a level either lower or higher than "Capability" and PPA. Two options are:
 - Place the crosswalk between Program- and Appropriations-Structures at the "project" level, with "project" as the lowest common denominator. A one-to-one relationship between projects in both structures would reduce the complexity of tracking programmatic elements between PP and BE.
 - Place the crosswalk between Program- and Appropriations-Structures at the Program level, with Program as the lowest common denominator. A one-to-one relationship between Program and FMC, such that Program Managers are FMC managers, would reduce the complexity of tracking programmatic elements between PP and BE. It would also eliminate conflicts of interest at the program level.
- **Consider implementation of a 2-4 year planning cycle, as opposed to annual.**
- **Reduce the number of Corporate NOAA priorities that are generated each year.** This would help focus and streamline later planning thereby reducing the resources expended to produce irrelevant or lower priority alternatives.

WORKFORCE

Participation in PPBES is viewed as an additional duty placed upon existing staff whose job classifications do not include PPBES as a primary function. This imposes an opportunity cost upon core mission functions and, at the same time, means that PPBES functions are not performed by specialists in program analysis; thus, the perception is that neither function is being performed adequately. In all phases, it is often the same people who perform multiple, redundant analytical tasks. The result is a workforce that is particularly frustrated with the process (see “CULTURE”).

Recommendations:

- **Designate FTE slots for the program analytic functions required by PPBES.** These slots would be for analytical staff in corporate offices of PPI, PA&E, and CFO, as well as for Goal Teams and Programs. These bodies should work with the Workforce Management Office to retain staff with experience and academic training in operations research, systems engineering, economics, and public administration. The resulting specialization of duties would simultaneously improve the quality of PPBES products and relieve the current pressure put on core programmatic functions.
- **NOAA units should offer and Corporate NOAA should support provision of incentives and rewards to keep talented staff engaged in the PPBES Process.** This might mean providing employees with additional training and other opportunities for professional development. There might be other mechanisms as well. See also Culture recommendations.

COMMUNICATION

There is a perception that PPBES has resulted in improved communication across NOAA. Although improving within each phase of PPBES, the perception is communication has improved mainly within the planning phase and among the workforce below the leadership of the agency. However, the perception is that communications improvements have not been so successful across PPBES phases. Corporate intent from Planning to Programming to Budgeting to Execution is neither stable nor transparent, and there is insufficient feedback to those working in prior phases on how prioritization decisions are made in the current phase.

Recommendations:

- **Require the timely availability of information in each phase.** This includes the annual priorities in the AGM, as well as updates of PIRS in response to iterations of the budget.
- **Formalize briefings in all phases that make reasons for decisions in that phase transparent to previous and subsequent phases (including execution to planning).** This would provide valuable feedback to those making budget requests in subsequent phases and years (see SYNCHRONIZATION finding).
- **Re-establish requirements for and redesign the PPBES website.** The renewed website should be inclusive of PPBES terms of reference, including a standardized

lexicon. It could also enable on-line dialog and trouble shooting of common issues, possibly facilitate by a dedicated moderator.

SYNCHRONIZATION

There is a perception that there are significant disconnects among the phases of PPBES, particularly between “PP” and “BE,” and including a feedback from execution through actual appropriations back into the planning and programming cycles. Where integration has occurred, it has been primarily in the planning phase. There is not a process to incorporate performance and decision-making feedback from the budgeting / execution phases into the new planning phase. This includes performance as indicated by performance measures as well as analyses of successful budget requests (or failures). This is preventing the potential benefits of an integrated PPBES from being realized.

Recommendations:

- **The goal and objective structure of the NOAA Strategic Plan should match the Program Structure.** The function of a program budget is to explain how an agency will spend dollars with respect to goals and objectives. Programs and Capabilities that are distinct from Objectives and Outcomes do not accomplish this primary function of a program budget. Program Objectives should be associated with producing particular programmatic Outputs, which, in turn, should be associated with particular external Outcomes. Program Capabilities should be framed as more tangible “sub-objectives.”
- **In identifying annual corporate priorities, the AGM, PDM, and DoC Submit should choose pre-existing goals and objectives from the strategic plan.** This is in contrast to the tradition of creating new language to identify priorities that may cross-strategic goals and objectives. This would facilitate the tracking of planning priorities through the other phases. If priorities change in other phases, these changes should also be expressed in terms of the goals and objectives of the strategic plan and should be accompanied by a justification of why the change was made. Priorities, changes to priorities, and justifications of changes should be codified in PPBES databases.
- **Track the Program portfolios (base activities and each proposed alternative) developed during the Planning phase, through the Programming, Budgeting, and Execution Phases.** Since an agency never has sufficient funds for all of its requirements, a method needs to be implemented to trace changes in level of financial commitment to requirements for implementation of NOAA corporate strategy. The tracking should include the relationship to each year's Annual Guidance Memorandum, the identification of any modifications, inclusion (or deletion) in part or in total, and ultimate disposition as contained in the President's budget request to Congress. Such information should then be used in developing the Line Office Annual Operating Plans and subsequent year's AGM priorities
- **Improve the flexibility of NOAA PPBES to adjust to rapidly emerging fact-of-life changes and national priorities.** Also, improved flexibility, meaning the allowance of adjustments in a given planning or budget cycle, would improve NOAA's ability to take advantage of opportunistic collaborations and partnerships that are foreclosed by rigid planning cycles.

- **House corporate planning, programming, and budgeting functions under a single authority.** A single lead for corporate PPB functions could plan and implement a coherent set of activities in each of these three phases and would thus smooth the transitions between phases. It could also reduce the number of redundant data calls.

ORGANIZATION

NOAA has segregated, or has at least not sufficiently integrated, the responsibilities of those who plan and program from those who budget and execute. (This has occurred primarily in line rather than staff offices.) Where segregation has occurred, there is the perception that those who plan and program for an activity often do not share the same concerns of those who budget and execute it. This exacerbates the problem of communications across phases and missions and the problem of a workforce that wears multiple hats and has divided portfolios. Further, it creates multiple, potentially conflicting authorities.

Recommendations:

- **Align the program structure more closely with the appropriation structure in subsequent revisions of the NOAA Strategic Plan.** Conversely, work to establish a legislative definition of NOAA appropriation lines that is more closely aligned to the desired program structure (e.g., through the proposals for NOAA Organic Act Legislation).
- **Create dedicated positions for management of the Program Structure (i.e., Goal Team Leads and associated staff) within the office of Program Planning and Integration.** This would eliminate conflicts of interest at the program level. See also Workforce recommendations.

INFORMATION TECHNOLOGY

The perception exists that the on-the-ground PPBES workforce does not have access to a mature and truly "end to end" information system. Tracking budget elements across phases and across structures is difficult, if not impossible. Multiple, disjointed systems, either in place (CasaNOSA, PIRS, budget systems) or evolving (E2E), are insufficient for performing the complex analytical functions inherent in PPBES.

Recommendations:

- **Continue work toward a mature information system that simplifies processes and enables tracking of information across phases.**
- **Reassess and redefine the requirements for a single "end-to-end" budget and management information system.** This reassessment should begin with the collective needs of those at the ground level who would work most intimately with it. The system should be built based upon these redefined requirements. It should be robust enough to account for how, why, and when decisions were made at each step in the budget process and why certain items were either successful or unsuccessful. See also Synchronization recommendations.

- **Consult with the providers and consumers of the various information technology systems prior to and after making improvements to ensure that these systems meet all requisite needs for effectiveness and efficiently.** Efforts to design, redesign or improve information systems should be done with meaningful input from applicable stakeholders.
- **Implement and enforce quality control of data across PPBES phases.** Ensure that data are timely, accurate, and consistent across information systems and PPBES phases.

IMPLEMENTATION

The PPBES process is not uniformly implemented across NOAA. Different Goal Teams implement their roles within the PPBES process differently and therefore functionally execute those roles differently. Similarly, Line Offices implement their roles within and execute the PPBES process differently. These differences of implementation, that is, the differences in implementing the PPBES process between similar organizations, exacerbate the communications and complexity issues being experienced.

Recommendations:

- **Clarify and standardize the roles responsibilities of Goal Team Leads and Program Managers within the NOAA Business Operations Manual (BOM).** This would necessitate an analysis of current and desired accountability structures and enforcement mechanisms. See also Communication recommendations.
- **Establish and resource more rigorous corporate performance management capability within PPI.** Improved performance measurement and program evaluation would allow for better-informed tradeoff decisions among programmatic elements, such that some can sunset to allow others to begin.

COMPATIBILITY

Trade-off analysis that is the core of PPBES may favor some programs over others because some programmatic outputs are easily quantified from a cost benefit perspective and tend to do better than those outputs that are harder to quantify. In particular, this put research programs at a disadvantage. In addition, mission support and administrative functions have a more difficult time fitting into the PPBES process as implemented at NOAA because their work depends almost entirely on what the mission goals plan, program, budget, and execute.

Recommendations:

- **Provide staff in Goal Teams and Programs with performance evaluation training that is tailored to their unique programs.** NOAA has unique needs for performance evaluation. There are many techniques available for the valuation of research and other intangible, public goods. Such techniques may not come with "out-of-the-box" performance evaluation training.

Working Group Response to Draft 1 (26 August)

PPBES Review Team Response to the Working Group Consensus Comments of 26 August 2008

**Offered on the First Full Draft of the PPBES Review Final Report,
Issued 21 August 2008**

Working Group--Overarching Comments

Comment 1:

The Working Group (WG) felt that the report was too long and it took too long to get to the heart of the recommendations (Chapter 7). The length of the report and the amount of secondary information that is presented before getting to the findings and recommendations results in a disjointed document. The length also makes it difficult for a reader to determine if the recommendations/findings actually provide solutions to some of the issues identified.

Comment 2: The report did not respond directly to the four main questions posed in the charge. The WG recognizes that the evaluation data did not provide all of the information needed to fully answer the charge, but some qualitative response to the questions should be provided. The report should include direct responses to those questions and specifically identify where answers were not available and why.

Comment 3: The WG recommends that the heart of the report be limited to:

- o Chapter 1 - expanded slightly to provide more context and summarize major themes/outcomes of the survey
- o Chapter 2 - to include responses to the charge and areas where the actual process diverged from the planned process
- o Chapter 7 – to discuss finding and recommendations
- o All other sections of the report should be provided as supplementary background material as Appendices or as separate documents.

Comment 4: The Background: History and Theory section is too academic for the purposes of this report, and lacks direct information about how PPBES was actually implemented at NOAA or how it might be used to improve implementation of PPBES in NOAA.

Comment 5: It would be useful for the report to identify which recommendations are most important (priority) and which require the most immediate attention (short-term vs. long-term), and whether some recommendations should be done prior to others.

Comment 6: There is no clear “bottom line” coming out of the report. What are the key messages and results? This should be included in Chapter 1.

Comment 7: The beginning of Chapter 6 is misleading with respect to the role of the WG. The workgroup was primarily tasked with reacting to information provided by the report authors. In particular, the workgroup had minimal time or opportunity to clarify data or investigate and [sic] research questions.

Comment 8: The WG recommends that NOAA think carefully about which information contained in the draft report is disseminated for review to the entire workforce. The survey data contain a lot of “dirty laundry”, and it and other collected information from the WG or the Focus Group could be taken out of context and easily misconstrued.

Comment 9: The graphics added to the end of the report in the Appendices are well done but the WG thought they were distracting and confusing and do not improve understanding of the report recommendations.

Comment 10: The WG believed that the report lost an opportunity to look at the creation of incentives to improve PPBES implementation and acceptance, and instead recommended even more command-and-control solutions.

Comment 11: The report also did not address some key issues raised by the surveys and the WG. As one example, the difficulty staff offices and other cross-cutting interests have with participating in the PPBES process was not addressed.

Comment 12: The report recommendations refer substantially to improved performance measurement and performance evaluation tools and training. The WG recommended a process review, and recommends that a process review include an examination of where performance management is an appropriate tool to create linkages between and among phases and functions of the PPBES process. However, performance management/measures in and of themselves are not the answer to everything. Despite that, a significant number of recommendations jump to performance measures as the solution, without the analytical justification to determine if they really are the solution.

Comment 13: A number of the recommendations lack a clear statement of what issue/problem they are trying to address. It is not always clear why the recommendation is the best solution to the problem.

Working Group Comments & Editorial Recommendations-Chapter 7 Findings & Recommendations

We have responded to the Working Group's comments below in the form that were submitted to us. Working group comments and edits are represented by red italicized text or are reflected in track changes. The review team response follows each section.

Findings & Recommendations

The findings in recommendations in this section are drawn from a variety of inputs, including the research instruments detailed in previous sections, the literature review, the personal experiences of the PPBES review team, as well as informal discussions that team members have had with NOAA personnel across the agency. Findings and recommendations are in no particular order, and recommendations represent a menu of possible options, which may be implemented piecemeal or in combination.

GENERAL FINDING

At NOAA, there is neither universal understanding nor acceptance of the purpose of the PPBES process. The perception persists that PPBES is a process to manage wealth (i.e., increase the budget), instead of the intelligent allocation of scarce resources against strategic, corporate priorities. Consequently, individual office or program interests, rather than corporate or national interests, still dominate the conversation. Without modification, individual interests will continue to dominate. However, there is also the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DoC, OMB, and Congress.

This section should reflect the highest level recommendations to come out of the review.

Recommendations:

- *(Reorder to be #3 in this section) After the PPBES process review has been completed and the process has been streamlined, corporate NOAA shall provide training through courses or workshops on the functions of PPBES. This training should be made available to all levels of management. Note: the WG felt that performance management is only one component of PPBES and that other aspects are deserving of training resource.*
- *(Reorder to be #2 in this section) Corporate NOAA shall amend NAO 216-111 to include performance metrics of PPBES itself. (See Appendix 1.) Sections 1.02 and 1.03 of this document already define success in a general way by laying out broad goals and outcomes of PPBES, but these should be made measurable and tangible. These metrics can then be used to gauge the performance of the corporate offices (PPI, PA&E, and CFO) within the annual PPBES process. This recommendation should more broadly address the need for NOAA to evaluate the PPBES process and clearly define success (which is more than just amending the NAO).*
- *(Reorder to be #1 in this section) PPI, PA&E, and CFO (this is not inclusive enough. See WG recommendation for a process review) shall conduct a joint review of the PPBES process, culminating in a single business process model of PPBES. The review should seek to make the process more effective and efficient through a collective assessment of information needs, the interrelation of PPBES products, the scheduling of tasks, feedback across phases and from DoC, OMB, and Congress, as well as the*

particular requirements of Goal Teams, Programs, Line and Staff Offices, Councils, and Regional Teams. Annual adjustments to the resulting business process model, to the extent it requires adjustment, shall be made available to the agency prior to the beginning of planning phase. *The WG intent for a process review is NOT for it to be a “business process reengineering” that simply results in a model of PPBES. Validation of the process review by the practitioners of PPBES is an important aspect of any process review, to avoid having the owners redesign a process that only serves the owners and doesn’t achieve needed streamlining (i.e., that the “fox is watching the henhouse”)*

CULTURE

Among NOAA's workforce (employees and contractors) there is now more openness, collegiality, cooperation, and coordination relative to planning, program development, and budget execution. However, even though NOAA’s workforce is more familiar with the analytical rigor expected within PPBES, it perceives itself as unable to deliver that rigor and thus is a workforce that is unsatisfied, frustrated, overworked, and ultimately inefficient. *Survey data provided a mixed message about this issue, and the WG felt that it was misleading to begin this discussion with a statement as strong as “NOAA’s culture is changing for the better,” and then end with a comment on how frustrated the workforce is.*

Recommendation:

- **Corporate NOAA shall require and provide NOAA Leadership to attain training in accredited courses or workshops on performance management.** Recipients of this training shall include Assistant Administrators, Deputy Assistant Administrators, Staff Office Directors, Goal Team Leads, Program Managers, and their respective staffs. *The WG recommends deleting this recommendation all together. It only focuses on performance management training, which, as mentioned in the WG’s overarching remarks, is only one aspect of PPBES. Additionally, it implies that the entire problem with the “culture” is a workforce that is untrained in performance management.*

BUDGET *This title is misleading. This section really addresses the need for clarity on the purpose of PPBES. “Purpose of PPBES” would be a better title.*

There is a perception that PPBES success is synonymous with increasing budgets, rather than improved performance in core missions. Where budgets have not grown, there is the perception that PPBES has not produced desired results. However, where budgets have grown, there is the perception that increases are not directly attributable to PPBES. However, regardless of the budget result, there is also the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DoC, OMB, and Congress.

COST

Implementation of NOAA's PPBES has generated direct, indirect, and opportunity costs beyond what was previously spent across NOAA on Strategic Planning, Budget Formulation, and Budget Execution. For example, there is now a new Line Office (PPI), a new Staff Office (PA&E), and new support positions for many of the Goal Teams, Sub-Goal Teams, and Program Teams that are dedicated solely to the development of Plans, Programs, and Budgets for submission to NOAA. In addition, the NOAA employees who serve on the various Teams do so in addition to performing the responsibilities of Line Office positions and are now responsible to more than

one supervisor. However, the exact costs of PPBES are difficult, at best, to determine. PPBES cost data are generally not routinely collected, and even those data that are collected are of unknown quality, are not readily available, and difficult to interpret. If an accurate representation of costs are required, a much more detailed study needs to be commissioned to capture the financial costs of PPBES at NOAA.

Recommendations:

- *(Reorder to be #2 in this section)* **Commission in-depth analysis to determine fiscal and personnel resources to appropriately resource the functions necessary for PPBES.**
- *(Reorder to be #1 in this section)* **Reduce the workload required for participation in NOAA PPBES by simplifying and streamlining the NOAA PPBES process.** See Complexity recommendations below.
- *(Should not be a recommendation. Instead, it should be a question that is examined as part of an analysis of appropriate resourcing of PPBES)* **Create dedicated staff positions filling them with personnel particularly qualified to fulfill the roles and functions within NOAA PPBES.** See Workforce recommendations below.
- *(Same comment as above-this should not be a recommendation)* **Subsidize participation of small, resource-challenged programs and offices in NOAA PPBES so that they may be more competitive with larger programs.** This might be accomplished by creating one dedicated PPBES staff position for several small programs, with the costs covered by Corporate NOAA. This person might sit within PPI or PA&E. *The issue is broader than subsidizing small/new/emerging programs with staff, but is about how new ideas get started and gain traction in NOAA, and how those ideas are supported/undermined by the current PPBES process. This also relates to some of the challenges that mission support/cross cutting parts of the organization have.*
- **Develop standardized record keeping protocols for use in all NOAA units to track costs related to participation in NOAA PPBES.**

COMPLEXITY

One of the most frequently cited problems with PPBES stems from the on-the-ground running of the system. Reactions were visceral. Respondents described PPBES with words such as: cumbersome, confusing, redundant, justification to death, process heavy, esoteric, painful, inefficient, counterproductive, frustrating, chaotic, out of control, constant struggle, inflexible, make work, unwieldy, intrusive, oppressive, run amok, and a waste of time. This may not necessarily be a result of PPBES itself, but of NOAA's implementation of it, particularly an excessive number of requests for information.

Recommendations:

- **Corporate offices, Goal Teams, Programs, and Councils should coordinate to limit excessive, often duplicative requests for information.** These bodies should endeavor to request only the information that is truly necessary to reduce the analytical strain on staff. They should provide staff with sufficient time to respond to data calls for completely and thoughtfully. Data collection instruments should be conceived, designed,

and explained in a manner that the recipient can easily understand the request and provide the information that is needed with minimal effort.

- **Incorporate *President's Budget and expected permanent* congressional appropriations from previous years into the assumptions of planning, programming, and budgeting.** Consider and, as required, adjust planning and programming guidance according to current and historical Congressional appropriation trends. *The PPBES process needs to recognize real changes to NOAA's budget; this relates to the WG's recommendation to incorporate external realities into the process more efficiently and effectively.*
- *Reword to read: Determine what level of precision is needed and appropriate to track information across PPBES phases. Provide a "lowest common denominator" to the crosswalk between Program Structure and Appropriation Structures. (See Appendix 5.)* The lowest common denominator can be placed at a level either lower or higher than "Capability" and PPA. *The WG thought this idea was interesting, and recognized that it had been implemented in some parts of the organization, but that the process of implementing this type of change needed to be handled carefully (so as to not just make the process more cumbersome) and there needed to be analysis and assurance that the solution proposed is really the best solution. Additionally, any new idea like this must have the appropriate IT support (e.g., E2E).* Two options are:
 - Place the crosswalk between Program- and Appropriations-Structures at the "project" level, with "project" as the lowest common denominator. A one-to-one relationship between projects in both structures would reduce the complexity of tracking programmatic elements between PP and BE.
 - Place the crosswalk between Program- and Appropriations-Structures at the Program level, with Program as the lowest common denominator. A one-to-one relationship between Program and FMC, such that Program Managers are FMC managers, would reduce the complexity of tracking programmatic elements between PP and BE. It would also eliminate conflicts of interest at the program level.
- **Consider implementation of a 2-4 year planning cycle, as opposed to annual.**
- **Reduce the number of Corporate NOAA priorities that are generated each year.** This would help focus and streamline later planning thereby reducing the resources expended to produce irrelevant or lower priority alternatives.

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Participation in PPBES is viewed as an additional duty placed upon existing staff whose job classifications do not include PPBES as a primary function. This imposes an opportunity cost upon core mission functions and, at the same time, means that PPBES functions are not performed by specialists in program analysis; thus, the perception is that neither function is being performed adequately. In all phases, it is often the same people who perform multiple, redundant analytical tasks. The result is a workforce that is particularly frustrated with the process (see "CULTURE").

Recommendations:

- *This also needs to be a question researched as part of the resources analysis under COST) and a process review. It is not an appropriate stand alone recommendation without the appropriate supporting analysis.* **Designate FTE slots for the program analytic functions required by PPBES.** These slots would be for analytical staff in corporate offices of PPI, PA&E, and CFO, as well as for Goal Teams and Programs. These bodies should work with the Workforce Management Office to retain staff with experience and academic training in operations research, systems engineering, economics, and public administration. The resulting specialization of duties would simultaneously improve the quality of PPBES products and relieve the current pressure put on core programmatic functions.
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Recommendations:

- **Require the timely availability of information in each phase.** This includes the annual priorities in the AGM, as well as updates of PIRS in response to iterations of the budget.
- **Formalize briefings in all phases that make reasons for decisions in that phase transparent to previous and subsequent phases (including execution to planning).** This would provide valuable feedback to those making budget requests in subsequent phases and years (see SYNCHRONIZATION finding).
- **Re-establish requirements for and redesign the PPBES website.** The renewed website should be inclusive of PPBES terms of reference, including a standardized lexicon. It could also enable on-line dialog and trouble shooting of common issues, possibly facilitate by a dedicated moderator. *The WG did not understand why this was a recommendation of the report and thought it might be too down in the weeds. It is not clear what the intention of this recommendation was. A recommendation to make information more readily available (of which website updates is a component) and in a timely manner made more sense to the WG.*

SYNCHRONIZATION

There is a perception that there are significant disconnects among the phases of PPBES, particularly between “PP” and “BE,” and including a feedback from execution through actual appropriations back into the planning and programming cycles. Where integration has occurred, it has been primarily in the planning phase. There is not a process to incorporate performance and decision-making feedback from the budgeting / execution phases into the new planning phase. This includes performance as indicated by performance measures as well as analyses of successful budget requests (or failures). This is preventing the potential benefits of an integrated PPBES from being realized.

Recommendations:

The next three recommendations all seemed very out of context relative to the entire evaluation process. It was not clear to the WG what was intended by these recommendations and how they added value to the PPBES process. The WG had included “synchronization” ideas in our process review recommendation, and feel that those recommendations were more pointedly directed at addressing lack of connection between PP and BE. Any of these changes/tracking ideas, if implemented, need to be more thoroughly analyzed and validated.

- **The goal and objective structure of the NOAA Strategic Plan should match the Program Structure.** (See Appendix 6.) The function of a program budget is to explain how an agency will spend dollars with respect to goals and objectives. Programs and Capabilities that are distinct from Objectives and Outcomes do not accomplish this primary function of a program budget. Program Objectives should be associated with producing particular programmatic Outputs, which, in turn, should be associated with particular external Outcomes. Program Capabilities should be framed as more tangible “sub-objectives.”
- **In identifying annual corporate priorities, the AGM, PDM, and DoC Submit should choose pre-existing goals and objectives from the strategic plan.** This is in contrast to the tradition of creating new language to identify priorities that may cross-strategic goals and objectives. This would facilitate the tracking of planning priorities through the other phases. If priorities change in other phases, these changes should also be expressed in terms of the goals and objectives of the strategic plan and should be accompanied by a justification of why the change was made. Priorities, changes to priorities, and justifications of changes should be codified in PPBES databases.
- **Track the Program portfolios (base activities and each proposed alternative) developed during the Planning phase, through the Programming, Budgeting, and Execution Phases.** (See Appendix 7.) Since an agency never has sufficient funds for all of its requirements, a method needs to be implemented to trace changes in level of financial commitment to requirements for implementation of NOAA corporate strategy. The tracking should include the relationship to each year's Annual Guidance Memorandum, the identification of any modifications, inclusion (or deletion) in part or in total, and ultimate disposition as contained in the President's budget request to Congress. Such information should then be used in developing the Line Office Annual Operating Plans and subsequent year's AGM priorities
- **Improve the flexibility of NOAA PPBES to adjust to rapidly emerging fact-of-life changes and national priorities.** Also, improved flexibility, meaning the allowance of adjustments in a given planning or budget cycle, would improve NOAA's ability to take

advantage of opportunistic collaborations and partnerships that are foreclosed by rigid planning cycles. *Similar concept to the WG's recommendation about educating about "on-ramps" (WF recommendation 2b(iii)).*

- **House corporate planning, programming, and budgeting functions under a single authority.** A single lead for corporate PPB functions could plan and implement a coherent set of activities in each of these three phases and would thus smooth the transitions between phases. It could also reduce the number of redundant data calls. *This is a bold recommendation, and relates to a WG recommendation (2c) to evaluate the organizational components involved with PPBES. However, the WG believes there needs to be more thought about the most appropriate organizational structure to facilitate streamlining the PPBES process. Any analysis should also look at past variations of organizational structure in planning and budgeting to make sure not to repeat past mistakes.*

ORGANIZATION

NOAA has segregated, or has at least not sufficiently integrated, the responsibilities of those who plan and program from those who budget and execute. (This has occurred primarily in line rather than staff offices.) Where segregation has occurred, there is the perception that those who plan and program for an activity often do not share the same concerns of those who budget and execute it. This exacerbates the problem of communications across phases and missions and the problem of a workforce that wears multiple hats and has divided portfolios. Further, it creates multiple, potentially conflicting authorities.

Recommendations:

- **Align the program structure more closely with the appropriation structure in subsequent revisions of the NOAA Strategic Plan.** Conversely, work to establish a legislative definition of NOAA appropriation lines that is more closely aligned to the desired program structure (e.g., through the proposals for NOAA Organic Act Legislation). *The WG did not understand this recommendation, and was not sure how this recommendation evolved out of issues raised in the surveys. It is an interesting idea, but additional analysis and thought needs to occur before proposing a full scale reorganization of NOAA's budget and program structure. The WG does agree that additional alignment (meaning having parts of a process that are mutually supportive of each other) needs to occur, but it isn't clear exactly how that alignment needs to occur.*
- **Create dedicated positions for management of the Program Structure (i.e., Goal Team Leads and associated staff) within the office of Program Planning and Integration.** This would eliminate conflicts of interest at the program level. See also Workforce recommendations. *The WG did not understand how this reorganization was related to the survey results. This topic engendered discussion within the WG, with WG members wanting to know more about what is intended, the justification, and what other options were explored.*

INFORMATION TECHNOLOGY

The perception exists that the on-the-ground PPBES workforce does not have access to a mature and truly "end to end" information system. Tracking budget elements across phases and across structures is difficult, if not impossible. Multiple, disjointed systems, either in place (CasaNOSA, PIRS, budget systems) or evolving (E2E), are insufficient for performing the complex analytical functions inherent in PPBES.

Recommendations: *The WG supported these recommendations*

- **Continue work toward a mature information system that simplifies processes and enables tracking of information across phases.**
- **Reassess and redefine the requirements for a single “end-to-end” budget and management information system.** This reassessment should begin with the collective needs of those at the ground level who would work most intimately with it. The system should be built based upon these redefined requirements. It should be robust enough to account for how, why, and when decisions were made at each step in the budget process and why certain items were either successful or unsuccessful. See also Synchronization recommendations.
- **Consult with the providers and consumers of the various information technology systems prior to and after making improvements to ensure that these systems meet all requisite needs for effectiveness and efficiently.** Efforts to design, redesign or improve information systems should be done with meaningful input from applicable stakeholders.
- **Implement and enforce quality control of data across PPBES phases.** Ensure that data are timely, accurate, and consistent across information systems and PPBES phases.

IMPLEMENTATION

The PPBES process is not uniformly implemented across NOAA. Different Goal Teams implement their roles within the PPBES process differently and therefore functionally execute those roles differently. Similarly, Line Offices implement their roles within and execute the PPBES process differently. These differences of implementation, that is, the differences in implementing the PPBES process between similar organizations, exacerbate the communications and complexity issues being experienced.

Recommendations:

- **Clarify *and validate* the *actual* roles *and* responsibilities of *participants in the PPBES process*.** This would necessitate an analysis of current and desired accountability structures and enforcement mechanisms (*what is meant by “enforcement”?* *It is an unclear statement and very heavy-handed. Implies that the only problem is with a non-compliant workforce. Very negative tone..* See also Communication recommendations.
- **Establish and resource more rigorous corporate performance management capability.** Improved performance measurement and program evaluation would allow for better-informed tradeoff decisions among programmatic elements, such that some can sunset to allow others to begin. *What is needed for performance management at the*

corporate level and who should be responsible is a leadership decision. Performance management changes need to be implemented with clear objectives.

COMPATIBILITY

Trade-off analysis that is the core of PPBES may favor some programs over others because some programmatic outputs are easily quantified from a cost benefit perspective and tend to do better than those outputs that are harder to quantify. In particular, this put research programs at a disadvantage. In addition, mission support and administrative functions have a more difficult time fitting into the PPBES process as implemented at NOAA because their work depends almost entirely on what the mission goals plan, program, budget, and execute.

Recommendations:

- **Provide staff in Goal Teams and Programs with performance evaluation training that is tailored to their unique programs.** NOAA has unique needs for performance evaluation. There are many techniques available for the valuation of research and other intangible, public goods. Such techniques may not come with "out-of-the-box" performance evaluation training. *It was not clear to the WG what was meant by this. It also goes back to the issue of implying that a lack of performance (evaluation? management? Measurement?) training was the only problem. The NOAA workforce is not going to like that implication very much. The process review should include a review and examination of where performance management is an appropriate tool to create linkages between and among phases and functions of PPBES...with appropriate training followed up after that analysis is completed.*

Findings and Recommendations of Draft 2 (5 September)

The Team's charge was to elucidate 1) the benefits of PPBES, 2) its costs, 3) the degree to which the former offsets the latter, and 4) options for systematic improvement. This section presents a number of findings (one general, eleven specific) that address the first three elements of the charge, and number of recommendations that address the fourth element of the charge. It must be admitted that (monetized) direct and opportunity costs were not available and the cost data that the Team could obtain was not consistent. The cost aspects of the charge, therefore, could not be dealt with quantitatively in this study.

The findings and recommendations in this section those of the authors. They are in no particular order, though recommendations are grouped underneath the findings to which they most closely relate. (Many recommendations apply to more than one finding.) The recommendations represent a menu of possible options, which may be implemented piecemeal or in combination. The Team has indicated which recommendations it believes are simple and relatively costless to implement in the near term (so-called "low hanging fruit") as well as which recommendations it believes are most important to implement, regardless of cost, over the long term. A more thorough analysis (than the Team could perform) of the costs and benefits may be necessary when deciding to implement many of them.

Findings and recommendations are drawn from a variety of inputs, including the research instruments detailed in previous sections (questionnaires and Focus Group), the literature review, comments from the Working Group, the personal experiences of the Team, as well as informal discussions that team members have had with NOAA personnel across the agency. All opinions of those that the Team contacted were considered, particularly those of the WG, though not all were necessarily taken. It is worth noting here that the findings derived from the experiences of people at NOAA should not be surprising; they largely parallel the results of other agencies that have implemented PPBES (see *Lessons Learned* on p. 20).

GENERAL FINDING

At NOAA, there is no agreed upon measure of PPBES success. As a result, there is neither universal understanding nor acceptance of the purpose of the PPBES process, even though our review of the literature and of NOAA's implementation material reveals a very consistent explanation of the purpose of PPBES (see section 3). The objective of PPBES is the intelligent allocation of scarce resources against strategic, corporate priorities, but the misperception that PPBES is a process to manage wealth (i.e., increase the budget) persists. In fact, simply asking, "Has the budget for your organizational unit increased (or decreased) since NOAA's Adoption of PPBES?" in its questionnaire reflects the Team's own inappropriate use of budget changes as a metric for PPBES success. Because of this misperception, individual office or program interests, rather than corporate or national interests, still dominate conversation. Without modification, individual interests will continue to dominate. However, there is also the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DoC, OMB, and Congress.

Recommendations:

- 1. PPI shall amend NAO 216-111 to include performance metrics of PPBES itself (*moderate impact, low cost*).** The metric most commonly used by NOAA employees to gauge the success of PPBES - and most encouraged by NOAA leadership - appears to be budget changes of individual components of NOAA. Yet this metric assumes that the benefits of PPBES accrue to NOAA itself, rather than to the nation that NOAA serves. If this metric did indeed accurately gauge PPBES success, one might conclude that PPBES has been successful because the NOAA budget has increased since PPBES implementation. But even if this were the case, many dispute that budget increases for their individual activities are attributable to PPBES, which further complicates the suitability of budget change as a useful metric. There are currently no formal performance metrics of PPBES, but Sections 1.02 of NAO 216-111 (see Appendix 1) already define success in a general way by laying out broad goals of PPBES: “to continuously and systematically assess internal and external environments to anticipate future opportunities and challenges; to ensure NOAA satisfies statutory and regulatory duties assigned to it; to attempt to satisfy the highest priority needs of NOAA’s customers; and to improve resource utilization.” These should be made measurable and tangible. These metrics can then be used to gauge the performance of the corporate offices (PPI, PA&E, and CFO) within the annual PPBES process.
- 2. Corporate NOAA shall provide training through courses or workshops on the purpose of PPBES (*high impact, moderate cost*).** PPBES is a performance management tool, not a wealth management tool. This training should be made available to all levels of management, from lower and mid level managers through program managers, goal team and sub-goal team leads, staff office directors, Financial Management Center (FMC) directors, Deputy Assistant Administrators (DAAs), and Assistant Administrators (AAs), as well as their respective staffs.

CULTURE

NOAA's culture is changing for the better because of PPBES; among NOAA's workforce (employees and contractors) there is now more openness, collegiality, cooperation, and coordination relative to planning and program development. NOAA could foster the burgeoning collegiality among individuals by facilitating the execution of plans developed through partnerships across units. However, even though NOAA's workforce is more familiar with the analytical rigor expected within PPBES, it perceives itself as unable to deliver that rigor and thus is a workforce that is unsatisfied, frustrated, overworked, and ultimately inefficient. This is often due to issues of structure and complexity. Recommendations to improve culture can be found under other findings.

COST

Implementation of NOAA's PPBES has generated direct, indirect, and opportunity costs beyond what was previously spent across NOAA on Strategic Planning, Budget Formulation, and Budget Execution. For example, there is now a new Line Office (PPI), a new Staff Office (PA&E), and new support positions for many of the Goal Teams, Sub-Goal Teams, and Program Teams that are dedicated solely to the development of Plans, Programs, and Budgets for submission to

NOAA. In addition, the NOAA employees who serve on the various Teams do so in addition to performing the responsibilities of Line Office positions and are now responsible to more than one supervisor. However, the exact costs of PPBES are difficult, at best, to determine. PPBES cost data are generally not routinely collected, and even those data that are collected are of unknown quality, are not readily available, and difficult to interpret. If an accurate representation of costs are required, a much more detailed study needs to be commissioned to capture the financial costs of PPBES at NOAA.

Recommendations:

3. **Corporate NOAA shall collect and use quantitative PPBES cost data (in conjunction with PPBES performance metrics) to inform decisions about PPBES processes through cost-effectiveness analysis (*high impact, moderate cost*).** PPI, PA&E, and CFO shall develop standardized record keeping protocols for use in all NOAA units to track costs related to participation in NOAA PPBES. Keeping track of resource requirements should be no different for the corporate execution of PPBES than for the typical office execution of programs and projects.
4. **Corporate NOAA shall create dedicated staff positions filling them with personnel particularly qualified to fulfill the roles and functions within NOAA PPBES (*high impact, high cost*).** See Workforce recommendations below.

COMPLEXITY

One of the most frequently cited problems with PPBES stems from the on-the-ground running of the system. Reactions were visceral. Respondents described PPBES with words such as: cumbersome, confusing, redundant, justification to death, process heavy, esoteric, painful, inefficient, counterproductive, frustrating, chaotic, out of control, constant struggle, inflexible, make work, unwieldy, intrusive, oppressive, run amok, and a waste of time. This may not necessarily be a result of PPBES itself, but of NOAA's implementation of it, particularly an excessive number of requests for information.

Recommendations:

5. **PPI, PA&E, and CFO shall work to reduce the workload required for participation in NOAA PPBES by simplifying and streamlining the NOAA PPBES process (*high impact, moderate cost*).**
6. **PPI, PA&E, and CFO shall conduct a joint review of the PPBES process, culminating in a single business process model of PPBES (*high impact, low cost*).** The review should seek to make the process simpler, more effective and efficient for all parties involved. The business model should account for specific information needs, the interrelation of particular PPBES products, the scheduling of tasks among offices, feedback across phases and from DoC, OMB, and Congress, as well as the particular requirements of Goal Teams, Programs, Line and Staff Offices, Councils, and Regional Teams. Annual adjustments to the resulting business process model, to the extent it requires adjustment, shall be made available to the agency prior to the beginning of planning phase.

7. **Corporate offices, Goal Teams, Programs, and Councils shall coordinate to limit excessive, often duplicative requests for information (*high impact, low cost*).** These bodies should endeavor to request only the information that is truly necessary to reduce the analytical strain on staff. They should provide staff with sufficient time to respond to data calls for completely and thoughtfully. Data collection instruments should be conceived, designed, and explained in a manner that the recipient can easily understand the request and provide the information that is needed with minimal effort.
8. **PPI, PA&E, and CFO shall incorporate congressional appropriations from previous years into the assumptions of planning, programming, and budgeting (*moderate impact, low cost*).** Consider and, as required, adjust planning and programming guidance according to current and historical Congressional appropriation trends.
9. **PPI, PA&E, and CFO shall restructure the PP-BE (Program-Appropriation) relationship and develop a “lowest common denominator” at the crosswalk (*high impact, moderate cost*).** At NOAA, the crosswalk between the appropriations structure and the program structure occurs from PPAs to Program Capabilities (See Appendix 5). Strictly speaking, there is no “lowest common denominator” because PPAs have a many-to-many relationship with Program Capabilities, and the dollars for one are split by percentage to translate to the other. This many-to-many relationship makes tracking elements from PP to BE – and back again – inherently complex. A one-to-one relationship at some level in both structures would yield a common denominator and make the crosswalk simpler to work with. The lowest common denominator can be placed at a level either lower or higher than “Capability” and Program-Project-Activity code (PPA). Two options are:
 - a. Place the crosswalk between Program- and Appropriations-Structures at the “project” level, with “project” as the lowest common denominator. A one-to-one relationship between projects in both structures would reduce the complexity of tracking programmatic elements between PP and BE, but the sheer number of projects may increase analytical workload because the units of analysis, “projects,” would be at a smaller scale and would be more numerous than either PPA or Capability.
 - b. Place the crosswalk between Program- and Appropriations-Structures at the Program level, with Program as the lowest common denominator. A one-to-one relationship between Program and FMC, such that Program Managers are FMC managers, would reduce the complexity of tracking programmatic elements between PP and BE. It would also eliminate conflicts of interest at the program level. FMC manager would be synonymous with “Program Manager.” This one person would have authority to Plan, Program, Budget, and Execute comprehensively for a Program. Responsibility for integration would shift to higher levels, where Goal Teams would still have authority to plan and program and Lines would still have authority to budget and execute.
10. **PPI shall consider implementation of a 2-4 year planning cycle, as opposed to annual (*low impact, low cost*).** Planning for every NOAA program every year may not be necessary and may not be an efficient use of planning resources, particularly as Program Operating Plans (POPs) do not change significantly from year to year.

Stagnating program planning could reduce workload and focus efforts where they are most needed.

- 11. PPI, PA&E, and CFO shall coordinate to reduce the number of Corporate NOAA priorities that are generated each year (*high impact, low cost*).** A limited number of clear, discrete priorities centrally determined at the outset of planning by corporate NOAA is a necessary element of PPBES. It would help focus and streamline planning by the rest of the agency, thereby reducing the resources expended to produce irrelevant or lower priority alternatives. If everything is a priority, then nothing is a priority. Corporate priorities established in planning should remain priorities through the subsequent PPBES phases.

WORKFORCE

Participation in PPBES is viewed as an additional duty placed upon existing federal employees whose job classifications do not include PPBES as a primary function. Program staff are currently supplemented by a contract workforce – some of whom may be more suitably trained in PPBES activities, but lack the resident knowledge of NOAA operations. This imposes an opportunity cost upon core mission functions and, at the same time, means that PPBES functions are not performed solely by specialists in program analysis; thus, the perception is that neither function is being performed adequately. In all phases, it is often the same people who perform multiple, redundant analytical tasks. The result is a workforce that is particularly frustrated with the process (see “CULTURE”).

Recommendations:

- 12. Corporate NOAA shall manage the NOAA workforce requirements for implementing PPBES using “position management”³⁹ (*high impact, high cost*).** We should not continue to task people with duties for which they were not trained or hired. PPBES functions are inherently governmental and should be performed by federal employees appropriately trained in planning and program analysis. These positions would be for analytical staff in corporate offices of PPI, PA&E, and CFO, as well as for Goal Teams and Programs, including Goal Team Leads and Program Managers. These bodies should work with the Workforce Management Office to retain staff with proven competencies in operations research, systems engineering, economics, and public administration. The resulting specialization of duties would simultaneously improve the quality of PPBES products and relieve the current pressure put on core programmatic functions.
- 13. NOAA units shall offer and Corporate NOAA shall support provision of incentives and rewards to keep talented staff engaged in the PPBES Process (*moderate impact, moderate cost*).** This might mean providing employees with additional training and other opportunities for professional development. There might be other mechanisms as well. See also Culture recommendations.

³⁹ “Position management involves the structuring of positions, functions, organizations in a manner that optimizes productivity, efficiency, and organizational effectiveness.” Army Personnel Advisory Center, Fort Lee VA. Available at: http://www.lee.army.mil/cpac/Classification/position_management.htm

COMMUNICATION

There is a perception that PPBES has resulted in improved communication across NOAA. Although improving within each phase of PPBES, the perception is communication has improved mainly within the planning phase and among the workforce below the leadership of the agency. However, the perception is that communications improvements have not been so successful across PPBES phases. Corporate intent from Planning to Programming to Budgeting to Execution is neither stable nor transparent, and there is insufficient feedback to those working in prior phases on how prioritization decisions are made in the current phase.

Recommendations:

- 14. PPI, PA&E, and CFO shall ensure the timely availability of information in each phase (*high impact, moderate cost*).** PPBES staff require the most up-to-date planning, programming, budget, and execution information to do their work. This includes the annual priorities in the AGM, as well as updates of PIRS in response to iterations of the budget.
- 15. PPI, PA&E, and CFO shall facilitate formal briefings in each phase that make reasons for decisions in that phase transparent to previous and subsequent phases, including execution to planning (*high impact, low cost*).** This would provide valuable feedback to those making budget requests in subsequent phases and years (see also Synchronization finding and recommendations).
- 16. PPI shall re-establish requirements for and redesign the PPBES website (*high impact, moderate cost*).** The renewed website should be inclusive of PPBES terms of reference, including a standardized lexicon. It could also enable on-line dialog and trouble shooting of common issues, possibly facilitate by a dedicated moderator.

SYNCHRONIZATION

There is a perception that there are significant disconnects among the phases of PPBES, particularly between “PP” and “BE,” and including a feedback from execution through actual appropriations back into the planning and programming cycles. Where integration has occurred, it has been primarily in the planning phase. There is not a process to incorporate performance and decision-making feedback from the budgeting / execution phases into the new planning phase. This includes performance as indicated by performance measures as well as analyses of successful budget requests (or failures). This is preventing the potential benefits of an integrated PPBES from being realized.

Recommendations:

- 17. PPI and PA&E shall ensure that the program structure matches the goal and objective structure of the NOAA strategic plan (*high impact, low cost*).** (See Appendix 6.) The function of a program budget is to explain how an agency will spend dollars with respect to goals and objectives. Programs and Capabilities that are distinct from Objectives and Outcomes do not accomplish this primary function of a program budget. Program Objectives should be associated with producing particular

programmatic Outputs, which, in turn, should be associated with particular external Outcomes. Program Capabilities should be framed as more tangible “sub-objectives.”

18. In identifying annual corporate priorities, PPI, PA&E, and CFO shall ensure that the AGM, PDM, and DoC Submit should choose pre-existing goals and objectives from the strategic plan (*high impact, low cost*). This is in contrast to the tradition of creating new language to identify priorities that may cross-strategic goals and objectives. This would facilitate the tracking of planning priorities through the other phases. If priorities change in other phases, these changes should also be expressed in terms of the goals and objectives of the strategic plan and should be accompanied by a justification of why the change was made. Priorities, changes to priorities, and justifications of changes should be codified in PPBES databases.

19. PPI shall track the Program portfolios (base activities and each proposed alternative) developed during the Planning phase, through the Programming, Budgeting, and Execution Phases (*high impact, moderate cost*). (See Appendix 7.) Since an agency never has sufficient funds for all of its requirements, a method needs to be implemented to trace changes in level of financial commitment to requirements for implementation of NOAA corporate strategy across all PPBES phases. The tracking should include the relationship to each year's Annual Guidance Memorandum, the identification of any modifications, inclusion (or deletion) in part or in total, and ultimate disposition as contained in the President's budget request to Congress. Such information should then be used in developing the Line Office Annual Operating Plans and subsequent year's AGM priorities

20. PPI, PA&E, and CFO shall improve the flexibility of NOAA PPBES to adjust to rapidly emerging fact-of-life changes and national priorities (*high impact, high cost*). Also, improved flexibility, meaning the allowance of adjustments in a given planning or budget cycle, would improve NOAA's ability to take advantage of opportunistic collaborations and partnerships that are foreclosed by rigid planning cycles.

21. Corporate NOAA shall house corporate planning, programming, and budgeting functions under a single authority (*moderate impact, low cost*). PPBES needs an owner. A single lead for corporate PPB functions could plan and implement a coherent set of activities in each of these three phases and would thus smooth the transitions between phases. It could also reduce the number of redundant data calls. Two options exist:

- a. The most logical owner is PPI, considering the corporate planning orientation that PPBES was created to engender (see Table 2 on p. 16) and the fact that it is a line office seated equally on NOAA corporate Councils with other line offices. The Director of Strategic Planning (planning phase), the Director of Program Analysis and Evaluation (programming phase), the NOAA Budget Director (budgeting phase), and the NOAA Finance Director (execution phase), would all report to the Assistant Administrator of Program Planning and Integration.
- b. Alternatively, PPBES could be owned by the NOAA Chief Financial Officer (CFO). Two of the four lead positions mentioned above already report to the CFO, however, this would not comport with the intent of PPBES to have a corporate planning orientation.

ORGANIZATION

NOAA has segregated, or has at least not sufficiently integrated, the responsibilities of those who plan and program from those who budget and execute. (This has occurred primarily in line rather than staff offices.) Where segregation has occurred, there is the perception that those who plan and program for an activity often do not share the same concerns of those who budget and execute it. This exacerbates the problem of communications across phases and missions and the problem of a workforce that wears multiple hats and has divided portfolios. Further, it creates multiple, potentially conflicting authorities.

Recommendations:

- 22. In the absence of an organic act, PPI shall align the program structure more closely with federal authorization laws in subsequent revisions of the NOAA Strategic Plan (*high impact, low cost*).** Conversely, work to establish a legislative definition of NOAA appropriation lines that is more closely aligned to the desired program structure (e.g., through the proposals for NOAA Organic Act Legislation).
- 23. Corporate NOAA shall move the positions of Goal Team Leads and associated staff to PPI, or the lead PPBES office (*high impact, high cost*).** Currently, Goal Teams Leads, and their respective staffs, are employed through particular line offices, while their responsibilities in the PP and BE phases do not always overlap. This arrangement risks institutional conflicts of interest. Placing full-time Goal Team positions within PPI would make them independent of any Line Office and eliminate such conflicts of interest. (See recommendations 12 and 21).

INFORMATION TECHNOLOGY

The perception exists that the on-the-ground PPBES workforce does not have access to a mature and truly "end to end" information system. Tracking budget elements across phases and across structures is difficult, if not impossible. Multiple, disjointed systems, either in place (CasaNOSA, PIRS, budget systems) or evolving (E2E), are insufficient for performing the complex analytical functions inherent in PPBES.

Recommendations:

- 8. CFO shall continue work toward a mature information system that simplifies processes and enables tracking of information across phases (*high impact, high cost*).** A single, "end-to-end" information system is absolutely necessary for PPBES to function as it is intended to.
- 9. CFO shall reassess and redefine the requirements for a single "end-to-end" budget and management information system (*high impact, high cost*).** This reassessment should begin with the collective needs of those at the ground level who would work most intimately with it. The system should be built based upon these redefined requirements. It should be robust enough to account for how, why, and when decisions were made at each step in the budget process and why certain items were either successful or unsuccessful. See also Synchronization recommendations.

- 26. CFO shall consult with the providers and consumers of the various information technology systems prior to and after making improvements to ensure that these systems meet all requisite needs for effectiveness and efficiently (*moderate impact, moderate cost*)..** Efforts to design, redesign or improve information systems should be done with meaningful input from applicable stakeholders.
- 27. PPI, PA&E, and CFO shall implement and enforce quality control of data across PPBES phases (*high impact, moderate cost*).** It is important that these offices ensure that data are timely, accurate, and consistent across information systems and PPBES phases.

IMPLEMENTATION

The PPBES process is not uniformly implemented across NOAA. Different Goal Teams implement their roles within the PPBES process differently and therefore functionally execute those roles differently. Similarly, Line Offices implement their roles within and execute the PPBES process differently. These differences of implementation, that is, the differences in implementing the PPBES process between similar organizations, exacerbate the communications and complexity issues being experienced.

Recommendations:

- 28. PPI shall clarify and standardize the roles responsibilities of participants in the PPBES process following the concept of “position management” (*high impact, moderate cost*).** Clarification can be made within the NOAA Business Operations Manual (BOM). This would necessitate an analysis of current and desired accountability structures and mechanisms. (See Recommendation 12.)
- 29. PPI shall establish and resource more rigorous corporate performance management capability (*high impact, moderate cost*).** PPI currently has responsibilities for corporate performance management. Improved performance measurement and program evaluation would allow for better-informed tradeoff decisions among programmatic elements, such that some can sunset to allow others to begin.

COMPATIBILITY

Trade-off analysis that is the core of PPBES may favor some programs over others because some programmatic outputs are easily quantified from a cost benefit perspective and tend to do better than those outputs that are harder to quantify. In particular, this put research programs at a disadvantage. In addition, mission support and administrative functions have a more difficult time fitting into the PPBES process as implemented at NOAA because their work depends almost entirely on what the mission goals plan, program, budget, and execute.

Recommendations:

- 30. PPI shall provide staff in Goal Teams and Programs with performance evaluation training that is tailored to their unique programs (*moderate impact, moderate cost*).** NOAA has unique needs for performance evaluation, particularly in

domain of research and the administrative functions of staff offices. There are many techniques available for the valuation of research and other intangible, public goods. Such techniques may not come with "out-of-the-box" performance evaluation training.

31. Corporate NOAA shall support the participation of programs with different missions and of different sizes in PPBES so that they may be more competitive (*moderate impact, moderate cost*). The requirements of PPBES impact smaller programs disproportionately and the outputs and outcomes of many staff offices are not always tangible. Corporate NOAA should ensure that such programs are not inherently at disadvantage when competing for resources.

Table 6: Recommendations and their Relative Impact and Cost

Recommendation		Impact	Cost
1	PPI shall amend NAO 216-111 to include performance metrics of PPBES itself	moderate	low
2	Corporate NOAA shall provide training through courses or workshops on the purpose of PPBES.	high	moderate
3	Corporate NOAA shall collect and use quantitative PPBES cost data (in conjunction with PPBES performance metrics) to inform decisions about PPBES processes through cost-effectiveness analysis.	high	moderate
4	Corporate NOAA shall create dedicated staff positions filling them with personnel particularly qualified to fulfill the roles and functions within NOAA PPBES.	high	high
5	PPI, PA&E, and CFO shall work to reduce the workload required for participation in NOAA PPBES by simplifying and streamlining the NOAA PPBES process.	high	moderate
6	PPI, PA&E, and CFO shall conduct a joint review of the PPBES process, culminating in a single business process model of PPBES.	high	low
7	Corporate offices, Goal Teams, Programs, and Councils shall coordinate to limit excessive, often duplicative requests for information.	high	low
8	PPI, PA&E, and CFO shall incorporate congressional appropriations from previous years into the assumptions of planning, programming, and budgeting.	moderate	low
9	PPI, PA&E, and CFO shall restructure the PP-BE (Program-Appropriation) relationship and develop a "lowest common denominator" at the crosswalk.	high	moderate
10	PPI shall consider implementation of a 2-4 year planning cycle, as opposed to annual.	low	low
11	PPI, PA&E, and CFO shall coordinate to reduce the number of Corporate NOAA priorities that are generated each year.	high	low
12	Corporate NOAA shall manage the NOAA workforce requirements for implementing PPBES using "position management."	high	high

13	NOAA units shall offer and Corporate NOAA shall support provision of incentives and rewards to keep talented staff engaged in the PPBES Process.	moderate	moderate
14	PPI, PA&E, and CFO shall ensure the timely availability of information in each phase.	high	moderate
15	PPI, PA&E, and CFO shall facilitate formal briefings in each phase that make reasons for decisions in that phase transparent to previous and subsequent phases (including execution to planning).	high	low
16	PPI shall re-establish requirements for and redesign the PPBES website.	high	moderate
17	PPI and PA&E shall ensure that the program structure matches the goal and objective structure of the NOAA strategic plan.	high	low
18	In identifying annual corporate priorities, PPI, PA&E, and CFO shall ensure that the AGM, PDM, and DoC Submit should choose pre-existing goals and objectives from the strategic plan.	high	low
19	PPI shall track the Program portfolios (base activities and each proposed alternative) developed during the Planning phase, through the Programming, Budgeting, and Execution Phases.	high	moderate
20	PPI, PA&E, and CFO shall improve the flexibility of NOAA PPBES to adjust to rapidly emerging fact-of-life changes and national priorities.	high	high
21	Corporate NOAA shall house corporate planning, programming, and budgeting functions under a single authority.	moderate	low
22	In the absence of an organic act, PPI shall align the program structure more closely with federal authorization laws in subsequent revisions of the NOAA Strategic Plan.	high	low
23	Corporate NOAA shall move the positions of Goal Team Leads and associated staff to PPI, or the lead PPBES office.	high	high
24	CFO shall continue work toward a mature information system that simplifies processes and enables tracking of information across phases.	high	high
25	CFO shall reassess and redefine the requirements for a single “end-to-end” budget and management information system.	high	high
26	CFO shall consult with the providers and consumers of the various information technology systems prior to and after making improvements to ensure that these systems meet all requisite needs for effectiveness and efficiently.	moderate	moderate
27	PPI, PA&E, and CFO shall implement and enforce quality control of data across PPBES phases.	high	moderate
28	PPI shall clarify and standardize the roles responsibilities of participants in the PPBES process following the concept of “position management.”	high	moderate
29	PPI shall establish and resource more rigorous corporate performance management capability.	high	moderate
30	PPI shall provide staff in Goal Teams and Programs with performance evaluation training that is tailored to their unique programs.	moderate	moderate
31	Corporate NOAA shall support the participation of programs with different missions and of different sizes in PPBES so that they may be more competitive.	moderate	moderate

Council Responses to Draft 2 (19 September)

Comments offered on second full draft of PPBES final Report, issued 05 September 2008:

- | | |
|------------------------------|-------------------------|
| 1) CFO Council | Draft comments received |
| 2) Ocean Council | Final comments received |
| 3) Education Council | Final comments received |
| 4) Research Council | Final comments received |
| 5) Observing Systems Council | Final comments received |

1) CFO Council Comments

CFO Council Comments/Recommendations On PPBES Draft Report 09/19/08

The Council is appreciative of the hard work that has gone into this report. The participants clearly had experience in their specific component of PPBES, but there does not seem to have been many who have experience in all of phases. The CFO Council's viewpoint is driven primarily by our focus on Budgeting and Execution, which we believe were under-represented in the Focus Group and the Working Group. We recommend that any further study effort be staffed based upon the range of activities inherent in PPBES.

We have several overarching comments on the report:

1. It is extremely important to highlight the general finding that the central purpose of PPBES is misunderstood. PPBES is **not** a budget growth mechanism, but is intended to better allocate resources against priorities.
2. Remove "shall". The purpose of the study was to offer opportunities for improvement. The report is not a tasking document.
3. The recommendations are too specific given the study parameters and the data and information collected, and exceed the scope of the findings. They should be more representative of the time and data limitations of the study.
4. The findings suggest that the process has been beneficial and should be retained, yet the report lacks a definitive statement acknowledging the need for improvement of the process. Further findings and recommendations then follow.
5. In many instances the recommendations conflict. Steve Murawski has done a great job capturing those problems. We will also highlight them. There are also several which have been considered by NOAA leadership on many occasions and been rejected. We suggest those be deleted.
6. In many cases, the focus of change or action is PPI, PAE, and CFO. We believe that all organizations participating in the process have important roles in its improvement.
7. The Working Group and Focus Group reports should be in the appendix and should not precede the findings and recommendations.

The comments and recommendations are in the order of listed in the report.

General

1. Agree that developing performance metrics is important for measuring success. However, do not feel it is needed to include in the NAO. Examples include: Do the

executed outcomes improve the strategic goals? Are we executing the AOP within available funds? Are we clearly articulating the strategic goals and meeting them

2. It's clear that training is needed to improve understanding of why we use PPBES as a decision making process. Training shouldn't just focus on the purpose of PPBES, but also include the skill set necessary for participants in all phases of the system. Remove "on the purpose of" in recommendation.

Cost

3. Although there is a need is to evaluate with the effort to minimize the cost of implementation, with no baseline data this cannot be achieved. The NEP has already decided not to expend the time and staff resources on a detailed cost data call and analysis. Delete.
4. Staffing of goals and programs has been the subject of many decision meetings about PPBES. The value of having functional expert such as scientists and meteorologists in the process is to improve understanding of the requirements and the challenges of execution. To abandon that model would lessen the link to execution, to NOAA's detriment. Delete.

Complexity

5. All participants (LOs, Goals, programs, etc.) need to work to simplify the process.
6. A single business process is not the point of PPBES. One of the important values of the PPBES as a decision making process is its differing analytical approaches and levels of detail. We agree with the need to a continuing focus on process improvement and decreased workload.
7. Data calls for PPBES follow a regular pattern and are often identical from year to year. The process owners should continue to work together to standardize the data whenever possible. However, not all data calls from Councils, regional teams, program managers, etc are actually driven by the formal PPBES activities. Some data requirements are driven by management needs or external questions. Delete or substantially revise to focus on PPBES activities..
8. The consensus (with strong PAE dissent) of the CFO Council supported including administration decisions, including the DOC Submit and the President's budget in Planning and Programming in specific detail, rather than the new business rule of adding fiscal guidance and allowing goals to "opt in" in the program plan. ne Line Offices are frustrated with having to re-justify program changes that were approved in the PB just because they were not adopted as part of the "NOAA Program" during the programming phase, even though the new business rule does not require detailed justification.. Although no agreement was reached in the discussion on how to handle the issue was reached, there was a senses that the business rule for incorporating existing approved

budget requests (at the various levels) needs to be reviewed again. This issue may be the fundamental basis of the “schism” between the PP and BE components of the system.

9. First, a thorough analysis of reporting requirements and required level of accuracy needs to be done. A crosswalk between the goals and programs and the line office budget structure currently exists. The issue should be focused on the number of capabilities that should be mapped to budget PPAs.
10. Agree with the 2-4 year planning cycle. PPI already considering.
11. Agree NOAA should reduce the number of corporate priorities. Consider standardizing the language between the priority phases and understand how they relate to each other. Development of clearer messaging of the priorities.

Workforce

12. If we implement this, NOAA is taking steps backward. Understand that people may be hired for one reason, but then end up working within PPBES without prior knowledge. This goes back to the need for adequate training, not only on the purpose of the system, but also on the role of that participant.
13. Delete. Not supported by the findings.

Communication

Understand the need for better communication, at the appropriate level of detail.

14. E2E is an answer. Need to include the goal teams to communicate with the programs.
15. Formal briefings are not the answer. Better open communication - all participants at each step need to be communicating with all groups. Work to provide information at all phases of the system.
16. Recognize that the website can be enhanced and updated.

Synchronization

17. The structure will probably be reset in the next generation strategic plan. The goals should be better linked to the plan. Recommendation: As develop the strategic plan, link and align with the goal program structure.
18. Similar language is necessary when possible. Agree that this could be better.
19. Need to do better with tracking the ability to meet the goals, not tracking each stage of the process all the way through. Need to better tie execution to the strategic goals. E2E with the audit trails should help here. As this recommendation is written it would be extremely complex and very, very expensive. Orders of magnitude more work for all.
20. We are doing this within Budget already. Need to understand that external players cause rigidity in the budget format. Delete – not supported by findings.
21. Everyone already works under a single authority, the Under Secretary of Commerce for Oceans and Atmosphere. Delete .

- 22 – 23. During development of the next generation strategic plan, need to better align with the goal structure, with an eye on execution relationships with the programs.
- 24 - 27. Recommendation: build out of E2E needs to be completed.

Implementation

28. “Position management” does not support the findings of the report. Recommendation: PPI clarify and standardize the roles and responsibilities of participants.
29. Clarify the role of performance measurements at various phases, and the role/responsibility of the performance management and recognize that line offices have lead on performance management, as they are accountable for execution.

Compatibility

30. Relates back to the need for expanded training on each phase, not just the purpose of the system.
31. How does this support the effectiveness of the process? Delete.

2) Ocean Council Comments

**NOC Comments on
An Evaluation of NOAA's Planning, Programming, Budgeting & Execution System (PPBES)
PPBES Review Team Document
September 18, 2008**

The NOAA Ocean Council (NOC) appreciates the opportunity to review the report and also appreciates the hard work that went into the review including the review team and Working Group. The draft report contains a large amount of background information and summaries of the survey that was conducted. The report does an excellent job in providing the context, synthesizing the input, and developing broad recommendations for PPBES. While the responses to the survey were diverse, they do provide support for maintaining PPBES in some form, but making it a more streamlined process that is based in budget reality. People want the system to work. The report identifies the main issues related to both benefits and problems associated with PPBES, but it is unclear that the recommendations taken as a whole will truly streamline the program.

In that regard, much work remains to turn the report into an actionable document that could be used to transform PPBES during the upcoming transition period. In drafting the final report, please keep in mind the work group recommendations, specifically the major ideas of defining success for, communicating, and properly resourcing PPBES. The report should outline what additional analyses should be conducted prior to decisions on specific recommendations. This will ensure that the actions taken will meet the intended goals of achieving a more responsive, agile and transparent process that achieves greater buy-in of the agency as a whole.

The evaluation document represents the work of a variety of individuals at various levels of understanding and maturity in the PPBES process. On balance, the comments provided reflect this diversity, with numerous, albeit sometimes contradictory, conclusions. Overall, from the documentation provided there seems to be a rough consensus that the system of the future should be leaner, more fascicle, provide more emphasis on dialog and less on "feeding the beast" (as quoted from the comments), and provide senior management an objective mechanism to consider proposals for both financial and structural changes that enhance NOAA's mission.

The report should be actively considered and used to refine the PPBES in NOAA. It should be a key element of future process reviews. It should not be viewed as a set of recommendations that can be applied without modification to address any shortcomings of PPBES in NOAA. This report assumes that NOAA should continue with every phase of PPBES and that all that is required are "course corrections".

The NOC encourages senior leadership to initiate a more structured dialog to address the shortcomings of the current system and capitalize on its positive attributes.

NEAR-TERM RECOMMENDATIONS

Streamlining

1. Priority should be given first to implementing actions that will streamline the system without increasing costs. Showing this type of positive outcome would go a long way to building buy-in to other changes that will require significant staff time to implement. There should be a clear recognition from NOAA leadership that it heard some of the key findings related to the impact the process has had on the involved staff, and is taking action to improve/streamline the system.

NOC Recommendation: Priority should be given first to implementing actions that will streamline the system.

2. The NOC supports the completion of a more thorough review to tailor and streamline the process (Recommendations 5 and 6) before additional work is completed on the other recommendations. The NOC feels that many of the recommendations should not be enacted without further analysis and discussion. For example, the report recommends some organizational changes – one option is for PA&E, the CFO, and Goal Team Leads (GTLs) to report to PPI. There is much more to the CFO than programming and budget formulation. Would the execution elements of the CFO be included under PPI as well? While a clear lead for PPBES is a good idea, perhaps the CFO's office would be a better choice with PA&E reporting to the CFO and PPI remaining separate and reporting directly to the Under Secretary. In this way PPI would still be able provide the strategic guidance for NOAA, and the CFO's office would run/integrate the programming and budgeting phases. The CFO's office would coordinate with PPI on evaluation.

NOC Recommendation: The NOC suggests a more thorough review, as suggested by recommendations 5 and 6, before any additional work is completed. A joint review could bring about some of the efficiencies sought in this process while reducing any inherent redundancies. The NOC would like to understand the complete “how this will be done” before whole heartedly supporting the final recommendation.

3. A number of recommendations would require increased record keeping and reporting. There should be a careful analysis of the need for the information, as well as a clear understanding of how the information will be used, before new reporting requirements are made. For example, it is unclear how PPBES performance metrics (recommendation 1) or cost data (recommendation 3) would be used. The costs of developing these systems may be low, but it would put an additional strain on an already over-taxed system. New requirements should also adhere to the tenet of recommendation 7 “Data collection instruments should be conceived, designed, and explained in a manner that the recipient can easily understand the request and provide the information that is needed with minimal effort.”

NOC Recommendation: Before new reporting requirements are made, there should be a more careful analysis of the need for information.

Connectivity between PP and BE

4. One of the critical shortcomings of the current system is connectivity between the Planning and Programming (PP) and Budgeting and Execution (BE) parts of the Agency. There is concern that many in NOAA's senior leadership that currently execute its missions have and will be increasingly turned off from contributing their insights and experience in the planning process (i.e., the people actually doing things probably have a good idea of what needs to be done in the future) should these recommendations go forward. Recommendations 12 (*"Corporate NOAA shall manage the NOAA workforce requirements for implementing PPBES using "position management"*"), and especially 23 (*"Corporate NOAA shall move the positions of Goal Team Leads and associated staff to PPI or the lead PPBES office"*) will further disconnect PP from BE.

The NOC is concerned with the **implication** that training (recommendation 2) and "position management" (recommendation 12) would make PPBES work better without addressing the fundamental disconnect between PP and BE: program managers without budget execution authority. If a full time matrix program manager does not have the means to see what was planned (and ultimately funded by appropriations) to be carried out the Agency's goals, what incentive does the program manager have for meeting the goals and participating in the plan?

At an interagency level, NOAA is often reflected poorly due to a disconnect between PP and BE levels. Employees frequently hear comments from our interagency colleagues saying that NOAA gets the most benefit from many interagency joint projects such as NOPP projects on ocean model development. However, NOAA is the only agency that could not make real funding commitment to participate NOPP projects – each time NOAA program manager(s) have to "pass the hat" within the agency for contribution from LOs.

NOC Recommendation: Re-evaluate recommendations 2, 12, and 23 in regards to how it will affect the connectivity between the Planning and Programming (PP) and Budgeting and Execution (BE) parts of the Agency. Develop additional options for ways to address the fundamental disconnect between the planning/programming activities and the execution of the programs.

5. The proposal to better link the process from planning through execution by tracking each alternative throughout the process will generate both benefits and costs that were not well analysed. Currently this information is tracked or identified by programs, goals and line offices on independent Excel spreadsheets that require a very significant amount of effort to maintain, reconstruct and validate data from the multiple sources of data into PIRS. The ability to track alternatives will help in quantifying the cost/benefit and/or success of the process. Without it, there is no way of tracking the needs identified in planning through the President's Budget development and ultimately to appropriations.

To be useful, the system, not only must be effective and efficient, it must be designed with flexibility to allow for alternatives to change over time. Particularly in the beginning of the process, the point of an alternative is not only to propose a way to address an unfilled requirement, but to begin a creative process that develops an effective, acceptable to the Congress and our stakeholders, executable, and affordable way to address a requirements gap.

As an alternative moves through the system, it often changes. A requirements gap can be filled by an alternative that is funded in a different program, goal, and even Line Office than the original proposal. .

There's an overall inconsistency throughout the document that the purpose of the process is to serve as NOAA's performance management tool rather than as a wealth management tool. While training is suggested, it must accommodate the reality that budget formulation and execution are conducted within the line offices which is consistent with legislative mandates.

NOC Recommendation: Re-evaluate recommendations to propose a strategy that will strengthen the links between PP and BE. The strategy should be effective, executable, affordable, flexible, and able to be used and understood appropriate personnel.

6. Recommendation 9 indicates restructuring the PP-BE relationship at the lowest common denominator and assumes that NOAA wishes to continue to track with two separate sets of 'books,' a Strategic set and an Execution set. For this to occur, a least common denominator would need to be determined, if possible. But first, a thorough analysis of reporting requirements and required level of accuracy would need to be done. NMFS may be currently doing recommendation 9a, but it is unclear whether this is the case or if the authors envision something more complex than is currently being conducted. Recommendation 9b, as outlined would be unworkable in NMFS because of the regional nature of its Financial Management Centers (FMCs). There is not a one to one correlation between a program and an FMC in NMFS. To make a one to one correlation between the two could risk allowing for national priorities as priorities became regionalized. NOAA should work with the line offices and program managers to come up with an acceptable solution to build a crosswalk between the goal team matrix and the line office budget structure.

NOC Recommendation: The NOC recommends further analysis for Recommendation 9.

7. The NOC is supportive of the concept of a PPBES overhaul. However, if all of the 31 recommendations are implemented, there is a strong possibility that it would result in a more ponderous, disconnected and bureaucratic system that would consume much more of NOAA's precious personnel and financial resources, with minimal demonstrable benefit to the Agency. NOAA's field elements currently view PPBES as primarily a headquarters-oriented activity and the cumulative impacts of enacting the 31 proposed recommendations will only reinforce this perception.

NOC Recommendation: The 31 recommendations proposed in the draft report require a more thorough analysis to determine their actual costs and their likelihood in improving the current system. Overall the NOC believes it is premature to implement most of the report's recommendations without more extensive analysis.

8. The NOC supports recommendations 5,7, and 9 moving forward in the near-term.

LONGER-TERM RECOMMENDATIONS

9. Recommendations 1 and 3 (p. 75-76) raise the importance of a thorough benefit/cost analysis, one that line offices would approve, as it would provide data for both planning and execution phases. This was in the original charge, but was not conducted during this review period. Additionally, many of the recommendations would result in more burdensome direct and indirect personnel costs (e.g. 9, 29, 30, 31).

NOC Recommendation: A thorough cost/benefit analysis should be part of this review and this should include the costs of implementing the recommendations.

10. The report authors did an exceptional job summarizing the numerous comments by respondents, the Working Group and others and binning them into themes relevant to the program evaluation. However, there is a disconnect between the summary of the comments, and the recommendations that follow. The missing element is an analysis of the pros and cons (i.e., costs and benefits) of implementing each recommendation and alternatives provided by respondents. For example, what is the basis to recommend that GTLs should be moved to PPI? An analysis of this should include the monetary costs, the impacts on Line Offices for back-filling some of the GTL positions, effects of the move on the desire to connect planning and execution, etc. Only when these impacts are assessed can NOAA leadership make a judgment as to their advisability.

NOC Recommendation: In order for NOAA leadership to make informed decisions about the recommendations in the report, the costs and benefits of the PPBES must be assessed. This is an essential piece that was not part of this analysis given the time to formulate the report and the general lack of readily available cost data.

11. The suite of 31 recommendations will add significant new costs to a system already perceived as excessively resource intensive. For example, of the 31 recommendations, 6 are considered to be high cost, 14 moderate and only 11 low cost. It is unclear which of these are one-time and which are recurring costs. The overwhelming sentiment was for a smaller, more directed system that would maximize input from senior leaders (i.e., the SES force). If implemented, these 31 recommendations would significantly raise the current (unaccounted for but substantial) costs while creating a more bureaucratic and centralized process which may be an anathema to SES “executers”.

NOC Recommendation: The NOC recommends that the analysis include information on which recommendations are one-time costs or recurring costs. Additionally, in reference to an earlier recommendation calling for a cost/benefit analysis of the PPBES, various scenarios could be developed to illustrate how various desired combinations of recommendations (i.e. alternatives) would add to the overall cost to the PPBES overhaul. In other words, assuming that PPBES remains and is overhauled, the true full costs of the current system, in addition to the recommendations, should be accounted for.

12. The high cost of Recommendation 4 (*Corporate NOAA shall create dedicated staff positions filling them with personnel particularly qualified to fulfill the roles and functions within NOAA PPBES*) is a little concerning in this time of reduced domestic budgets. If budget increases are to be sought, they should be focused on the mission areas of NOAA to fulfill the strategic goals, rather than to create another layer in the review and / or management of the programs and related funding needs.

NOC Recommendation: A thorough cost/benefit analysis should be part of this review and this should include the costs of implementing the recommendations.

13. Recommendation 2 (p. 75) assumes that training would occur prior to the streamlining of the PPBES effort and implies that the process would continue unchanged. The WG recommended that this training occur at all levels after the end-to-end process review was conducted and adjustments have been made.

NOC Recommendation: Provide an analysis of different alternatives and the costs of training at different levels of the Agency.

14. The report does not mention if the review team looked at other U.S. **science agencies** and their forms of matrix management to compare to NOAA's PPBES system. These include mission agencies such as NASA (HQ vs labs, flight centers, and JPL); Navy's research arm (ONR vs NRL); DOE (Office of Science vs National Labs); and possibly USGS (HQ disciplinary science directories vs regions/science centers); as well as non-mission agency such as NSF (science program managers are responsible from planning through execution which is to fund research projects in the research community). These agencies all have one form of matrix management or another. NOAA should look at their systems to see what works and what does not work. What is unique to NOAA is that NOAA effectively has two categories of missions: a) operational and regulatory missions (e.g., NWS), and b) science mission (e.g., OAR). From the discussion of PPBES history and theory, and reading the responses to the questionnaires, it seems pretty clear to me that DoD's form of PPBES probably does not work well for science agencies/science mission. However, the process may work fairly effectively to operational mission, if properly used.

NOC Recommendation: Review forms of matrix management systems at other U.S. science agencies to see if there are processes that may work at NOAA.

Longer Planning Cycle

15. The proposal for a 2-4 year planning cycle (10) has merit and needs to be explored, but the authors consider it to have only low impact. One of the reiterated concerns of people involved in the PPBES process is that the process starts from scratch each year with slight changes in starting conditions necessitating significant process even for those programs for which there will be few changes. One of the major challenges with PPBES is that there is almost always a very significant change to the process (and as a result, the schedule) every

yea. These changes make it difficult to plan staffing and workloads in anticipation of each year's cycle.

NOC Recommendation: The NOC recommends giving recommendation 10 more weight. Given the discussion on how PPBES results in a burdensome workload, changing PPBES to a 2-4 year planning cycle, would result in greater efficiencies. One suggestion is to phase work cycles so that some programs or capabilities provide “updates” in a particular year, while selected programs or capabilities “benchmark” their POPs in a particular cycle. There can be a number of criteria for what constitutes an update or a benchmark, and this would get at the reason for the proposal for a multi-year planning phase, namely work load.

16. Although the NOC supports the idea of a 2-4 year planning cycle there still needs to be the opportunity to develop alternatives annually (even if it isn't your program's year to develop a POP) if there are key issues/opportunities that arise.

NOC Recommendation: The NOC suggests that this recommendation include flexibility to update a longer planning cycle as needed.

Process vs. Content Knowledge

17. Linking operational parts of NOAA and maximizing cross-program and cross-goal synergy requires content knowledge not just process knowledge. Recommendations 4 and 12 suggest that positions in the Goal Teams be staffed with employees trained in planning and program analysis relevant to PPBES, stressing process knowledge over content knowledge. Goal Teams need staff with relevant programmatic expertise as well as analytical skills, where as other units may need more skills in public administration or other process oriented fields. NOAA must ensure that staff with actual on the ground experience in conducting the programs and in executing the funds are not shut out of the process by a team that would report directly to Corporate NOAA and may not be directly affected by their recommendations.

Nonetheless, the report identified a fact that in the PPBES process, “individual office or program interests, rather than corporate or national interests ... dominate ...” One solution is more training. It is not realistic to expect PPBES participants not to advocate individual interests – it is a budget process after all. The challenge and promise for matrix management is for ***independent*** matrix program managers to build programs that integrate individual interests into high level, mission relevant priorities that support corporate or national interests. This requires independent program managers with basic knowledge and understanding of individual interests, and with authority to set priorities and execute to achieve the goals through control of resources during execution.

NOC Recommendation: Recommendations 4 and 12 are sensitive recommendations because they suggest that process knowledge is more important than content knowledge. The NOC suggests these recommendations be re-evaluated to assess the importance of content knowledge as well as process knowledge.

CONTRADICTIONS AND INCONSISTENCIES

18. There are contradictions among the 31 recommendations provided in the report. For example, in recommendations 5 and 6 there is a call for a reduction in workload, greater simplification and streamlining, and a joint review that would lead to a single business process model. However, many of the other recommendations add additional layers of process (e.g., 15, 19, 30), and create greater demands on an information system (14, 19, 24, 26) currently not capable of supporting both a traditional line office structure and a simultaneous matrix structure. The delays in implementing the “E2E” data management system should provide ample example of the difficulty and expense of doing so.

NOC Recommendation: The NOC recommends that NOAA leadership accept recommendations 5 and 6, but allow a more thorough digestion of the questionnaire and analysis of information rather than making precipitous decisions that will potentially exacerbate rather than ameliorate perceived shortcomings of the current PPBES.

19. Recommendations 18 (“*In identifying annual corporate priorities, PPI, PA&E and CFO shall ensure that the AGM, PDM, and DoC Submit should choose pre-existing goals and objectives from the strategic plan*”) and 20 (“*PPI, PA&E and CFO shall improve the flexibility of NOAA PPBES to adjust to rapidly emerging fact-of-life changes and national priorities*”) seem to be in direct conflict. The current NOAA Strategic Plan was drafted in April 2005. Clearly it is rapidly going out of date and will always be so given the rapidity at which NOAA’s priorities get adjusted (e.g., legislation, natural events, political change).

NOC Recommendation: Given that the NOAA Strategic Plan is a relatively static document and given that the world is a rapidly changing place, it seems recommendations 18 and 20 are in conflict. These two recommendations should be re-evaluated and one chosen over the other.

20. The Compatibility Section does not contain recommendations that match the issue cited. The recommendations are aligned to performance metrics, which is a cross-NOAA responsibility, not one resting solely on the strategic side. LOs should be the primary managers of performance management.

NOC Recommendation: The NOC suggests that the Compatibility section include recommendations that match the issue. Further, the NOC suggests the document clarify that the primary managers of performance management are LOs.

REPORT ASSUMPTIONS

The report reflects a significant effort by people committed to the future success of NOAA. The report includes all views and does not appear to withhold comments in an effort to be politically correct. This is to be commended. However, the people who provided input to the report all have different levels of involvement and understanding of the PPBES in NOAA. The report does not make clear that the input may not reflect the situation in all areas, especially when

considering the diversity of processes in Line Offices, Goal teams, and field offices. The following comments highlight some areas where NOAA's diversity has led to some misunderstandings.

1. The report does not mention the different definitions assigned to terms used in the survey. For example, budget meant different things to respondents. Some respondents used the term to mean appropriated funds, some meant funds available to a program for execution, some referred to the President's Budget, others referred to Line Office budget submissions.
2. Page 36 states that planning and programming do not consider funding limitations. This is not correct, funding limitations are a key part of programming.
3. There is a great deal of concern about the volume of work introduced by PPBES. The report does not note where the drivers for this work originate. One quoted comment asks about the necessity for many alternatives in a Program Operating Plan (POP). The number of alternatives is not driven by the offices designing the POP or the offices that use the POP as a primary input, but the POP authors themselves. A concern about excessive data calls is evident in several areas. Data calls are not always originated by offices responsible for management of PPBES, but are sometimes done by people who are asked questions to which they do not know the answer. Rather than reporting they do not know the answer, hasty and ill considered data calls are issued.
4. The report assumes that the survey responders and other input group responses were correct in their understanding of all elements of PPBES. This is not always true. Responders answered questions based on their perceptions of PPBES and those perceptions are not always correct. There are several recurring examples: a crosswalk between PDM elements and the NOAA budget is available, the Program Information Reporting System (PIRS) is not a budget information system and is not an authoritative source of budget information, and many of the requested business rules are already published. In the case of business rules, it appears survey respondents did not agree with the business rule and therefore stated that one did not exist.

NOC Recommendation: The NOC suggests that the authors add a section to address assumptions.

SPECIFIC RECOMMENDATIONS

1. On page 75 under the Culture section, the intro sentence states that NOAA's culture is improving. Later, the statement that NOAA "is a workforce that is unsatisfied, frustrated, overworked and ultimately inefficient" is in direct conflict with the earlier statement. It should be stated that while there have been improvements in some areas; overall, the workforce is unhappy with the system.
2. The NOC supports Recommendation 8 (*PPI, PA&E, and CFO shall incorporate Congressional appropriations from previous years into the assumptions of planning, programming, and budgeting*). Along with adding the congressional appropriations into the assumptions, the current program needs to be based on the most recent approved NOAA, DOC, or OMB approved budget, depending where we are in the budget cycle.

3. Under Recommendation 21 (*Corporate NOAA shall house corporate planning, programming, and budgeting functions under a single authority*) a third option could be to keep Planning under PPI and put PA&E, Budgeting and Execution under the CFO.
4. Recommendation 4 (p. 76) is premature prior to a process review to determine the efficient staffing of this effort (reference WG Attachment 2, first recommendation under Chapter 7).
5. Recommendation 5 (p. 76) is not specific as to how the process would be simplified and who would be involved in the crafting of this revised process. The LOs need to be equal partners in this revision, as do other stakeholders in the process (as recommended by the Working Group).
6. Recommendation 7 does not specify the LO role and does not mention how to limit the requests. For example, the WG recommendation to include a master corporate calendar likely would improve communication and planning.
7. Recommendation 10, top of page 78, replace ‘stagnating’ with ‘staggering’
8. Recommendation 12 (AND Recommendation 28) cites the need for specific roles and responsibilities and Federal positions for PPBES, which should not be undertaken without a process review to determine a more streamlined set of requirements and the most efficient staffing of this effort. It should not be assumed that expanding corporate overhead is the answer.
9. Recommendation 17 (p. 79) must ensure that the execution structure is also considered prior to a re-design of the program structure and subsequently the next-generation strategic plan.
10. Recommendation 18 is not clear and does not account for flexibility that was requested by the Working Group, some issues may not make it to the Strategic Plan but are nonetheless important (e.g., hurricanes, climate services...). See Rec. 20...combine.
11. Recommendation 22 pertains to the LOs as the authorized execution agents for the agency.
12. Recommendation 23 (p. 81), there is a tendency to split the strategic side of NOAA away from the scientific execution of NOAA which further alienates the corporate structure.
13. Recommendation 29 (p. 82) is incorrect to say that PPI is currently leading performance management (aside from the corporate performance measurement catalog). While improved metrics are needed, this is a cross-NOAA responsibility. Decisions for any fiscal re-alignment rest with the LOs, NOAA budget and Congress.

3) Education Council

----- Original Message -----

Subject:Re: PPBES Review

Date:Fri, 19 Sep 2008 15:54:43 -0400

From:Louisa.Koch <Louisa.Koch@noaa.gov>

To:Gary C. Matlock <Gary.C.Matlock@noaa.gov>, Michael Abreu
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CC:Christos Michalopoulos <Christos.Michalopoulos@noaa.gov>, Jennifer Faught
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References:<48BD8E12.4080504@noaa.gov> <48C14CF0.4060009@noaa.gov>

Gary and Michael,

The NOAA Education Council appreciates the opportunity to comment on "An Evaluation of NOAA's Planning, Programming, Budgeting & Execution System (PPBES)". The Council recognizes the hard work that went into this effort and commends both the review team and working group for their contributions. The strengths of the report are providing the context for PPBES, including detailed sections on history, theory, and on an academic overview of costs and benefits of the process. In addition, given the time and resource constraints present, it is commendable that the report was successful in synthesizing the input and articulating specific recommendations. It is clear from the results presented that NOAA as whole supports maintaining PPBES but in a more streamlined, less arduous, and better integrated form.

Our main criticism is that given the importance of PPBES for NOAA and the effort dedicated to its implementation since inception, the report falls short in adequately addressing the original charge (four key questions found on page 2) by failing to establish the benefits of PPBES, to document the direct and indirect costs to our Agency, and to determine whether the costs are acceptable relative to the benefits. While the report does provide 31 recommendations for improvement, many of these may actually result in a more onerous and complex process.

We whole heartedly support recommendations 5 and 6 and suggest that before any major decision are made by NOAA leadership on how to proceed, a more thorough review that includes costs and benefits must be undertaken.

Louisa Koch
Education Council Chair

4) Research Council

September 17, 2008

Council Comments on Draft PPBES Report

Author: NOAA Research Council

Background

On September 5, 2008, the Council received a request from the NOAA Executive Panel working group to review the draft version of their Report on the NOAA Planning, Programming, Budgeting and Execution System, or PPBES. These comments will inform the final version of the report which will be provided to the full NEP later this year.

General Comments:

As we transition into the next administration of NOAA it is vital to have a thorough evaluation of the PPBES system and a set of sound recommendations to right-size the process to effectively plan and manage our diverse portfolio. The evaluation document represents the work of a variety of individuals at various levels of understanding and maturity in the PPBES process. On balance, the comments provided reflect this diversity.

The team is to be commended for the speed and thoroughness of these findings, given the time available to them. Even though their expedited data call/ questionnaire yielded a response rate of under 50%, there were many themes re-iterated in these various channels of input. However, there was little time available to examine and analyze the many recommendations for improvement, in order to craft a set of consistent, actionable recommendations. Further, the team acknowledges that “hard” data on costs/outcomes is exceedingly sparse, and this limits the analysis that they could perform.

The report assumes that the survey responders and other input groups responses were correct in their understanding of all elements of PPBES. This is not always true. Responders answered questions based on their perceptions of PPBES and those perceptions are not always correct. There are several recurring examples, a crosswalk between PDM elements and the NOAA budget is available, the Program Information Reporting System (PIRS) is not a budget information system and is not an authoritative source of budget information. In the case of business rules, survey respondents apparently did not agree with the business rule and therefore stated that one did not exist.

Also, on page 36, the report states that planning and programming do not consider funding limitations. This is not correct, funding limitations are a key part of programming.

Overall, there is a rough consensus that the system of the future should be leaner, more fascicle, provide more emphasis on dialog and less on “feeding the beast” (as quoted from the comments), and provide senior management an objective mechanism to consider proposals for both financial

and structural changes that enhance NOAA's mission. Unfortunately, if all of the 31 recommendations are implemented, it would result in a more ponderous, disconnected and bureaucratic system that would consume much more of NOAA's precious personnel and financial resources, with minimal demonstrable benefit to the Agency. NOAA's field elements currently view PPBES as primarily a headquarters-oriented activity and the cumulative impacts of enacting the 31 proposed recommendations will only reinforce this perception.

One of the critical shortcomings of the current system is connectivity between the Planning and Programming (PP) and Budgeting and Execution (BE) parts of the Agency. We are concerned that many in NOAA's senior leadership that currently execute its missions have and will be increasingly leery of contributing their insights and experience in the planning process (i.e., the people actually doing things probably have a good idea of what needs to be done in the future) should these recommendations go forward as presented.

This is a lot of material to wade through to get to the findings and recommendations. We suggest reorganizing the material so that the front 20-pages capture the important information (the charge, a short background, a very short summary of how the data was collected/analyzed and the full version of the findings and outcomes. The rest of the material, while excellently done, should go in appendices or become supporting information.

The report does not mention the different definitions assigned to terms used in the survey. For example, budget meant different things to respondents. Some respondents used the term to mean appropriated funds, some meant funds available to a program for execution, some referred to the President's Budget, others referred to Line Office budget submissions.

Comments on Report Findings

The review points out PPBES benefits, but it should also be noted in the report that it's possible that these benefits, while instigated via the PPBES process, could have been achieved through other efforts not driven by the budget process to improve matrix and goal-team management to achieve mission objectives.

There is a great deal of concern about the volume of work introduced by PPBES. The report does not note where the drivers for this work originate. One quoted comment asks about the necessity for many alternatives in a Program Operating Plan (POP). The number of alternatives is not driven by the offices designing the POP or the offices that use the POP as a primary input, but the POP authors themselves.

A concern about excessive data calls is evident in several areas. Data calls are not always originated by offices responsible for management of PPBES, but are sometimes done by people who are asked questions to which they do not know the answer. Rather than reporting they do not know the answer, hasty and ill considered data calls are issued.

With respect to transparency, the facilitation of briefings (a recommendation) is a step in the right direction, but it does not particularly help the working level folks. Written feedback is

needed on the initiatives to flow down the chain and back to the originator. Only in this way, can it be assured the information reaches the appropriate level in the organization thereby providing insight into the process.

An additional transparency issue not raised in the report is guidance that forces the respondents to make inappropriate requests. For example, each year the guidance has been to submit inputs with the assumption of zero new FTEs. This is an inappropriate assumption particularly if you have a growing or expanding program. This system is only as good as the accuracy of the information that goes into it. PPBES suffers from guidance intended to control the input rather than reflect reality. The inputs need to cover real situations i.e. they should reflect real management issues where the costs of maintaining a static workforce increases with time simply due to inflation and pay increases. In order to maintain what you have requires greater funds. The PPBES should not control the input but get accurate inputs to make tough choices. All choices should be available under PPBES, but they are dampened by the guidance to control the inputs. The PPBES should reflect all the inputs and make choices based on programmatic priorities – even the tough choices between maintaining what you’ve got or doing something new.

With respect to identified PPBES pitfalls, we note the following:

- Visceral responses to the question of how manageability and effectiveness of the process indicate the frustration with the level of clarity in process/procedures, ineffective reporting systems, and the time spent responding to numerous, often duplicative reporting responsibilities when for little apparent value added.
- The PPBES planning/programming has been unable to respond to adjustments in downstream budget changes (DOC, OMB, Congressional appropriations), leaving the starting assumptions outdated and incorrect for the planning year. Further efforts to plan based on a flawed current assessment frustrate all involved.
- NOAA budget and execution (CFOs and line office) is divorced from NOAA programming and planning (PPI, PAE and GT)—so that there is great disconnect and frustration when efforts of GT planning are not carried through in budget/execution.
- NOAA continues to measure its corporate success in terms of budget increase, and this approach is reflected in the financial execution of programs, while NOAA expects that PPBES be applied to budget prioritization within severe resource limitations

The report should note that because the key objective for PPBES is to support its mission objectives, NOAA should measure its corporate success primarily in terms of achieving technical mission objectives, rather than budget growth

Another pitfall is the disconnect between PP and BE, which is amplified by program planning guidance that proscribes Goal Teams/Programs from indicating the reductions to effort from inflationary rise in both non-labor and labor costs. The only way to compensate for this is to plan for new activity; not to address deficiencies in currently well-vetted program capabilities. Nor are inflationary adjustment permitted in out-year planning.

Comments on Recommendations:

There are 31 recommendations in the final chapter which, taken as a whole, are conflicting, and have not been fully examined. Is the expectation that all of them be implemented? Is there a proposed order or priority to implementing the recommendations? The 31 recommendations came from the analysis of the inputs. Which of the recommendations address issues that were most frequently mentioned as problem areas? Which recommendations does the report team think would generate the most improvement?

The suite of 31 recommendations will add significant new costs to a system already perceived as excessively resource intensive. For example, of the 31 recommendations, 6 are considered to be high cost, 14 moderate and only 11 low cost. It is unclear which of these are one-time and which are recurring costs. In particular, the proposal to better link the process from planning through execution by tracking each alternative throughout the process will generate costs well beyond the benefit. It is true that the link between PP (planning and programming) and B (budgeting) needs to be strengthened, and the link between E (execution) and all other phases needs to be strengthened, but tracking alternatives as proposed will be very costly. The point of an alternative is not only to propose a way to address an unfilled requirement, but to begin a creative process that develops an effective, acceptable to the congress and our stakeholders, executable, and affordable way to address a requirements gap. As an alternative moves through the system, it often changes. A requirements gap can be filled by an alternative that is funded in a different program, goal, and even Line Office than the original proposal. As long as the requirement is filled, the solution is effective. Tracking an alternative through many changes simply to strengthen the link between phases is not the most cost effective solution.

What is the recommended priority of implementing the recommendations to address the majority of the comments? Which would generate the most benefit? The report discusses lost opportunity costs, diverting manpower from operational jobs to PPBES, etc., so what's the benefit of adding performance metrics which will have to be tracked at additional manpower costs? What's the perceived value of the recommendations? For example, what is the basis to recommend that GTLs should be moved to PPI? An analysis of this should include the monetary costs, the impacts on Line Offices for back-filling some of the GTL positions, effects of the move on the desire to connect planning and execution, etc. Only when these impacts are assessed can NOAA leadership make a judgment as to their advisability

In terms of the recommendations, they all address the PPBES process and not the 'philosophy' of the PPBES. Two examples (paraphrased from the report) are: (1) the need for greater transparency in the process and the decision making is highly desirable and (2) the report also stated that consistency with stated priorities in supporting initiatives and programs needs to be addressed. The closest recommendation to addressing the consistency issues is the one about the AGM, PDM and DoC using pre-existing goals and objectives from the strategic plan. This is not a sufficient recommendation from my point of view. The strategic plan is much too general and the AGM & PDM are very limited focus sets of priorities to address the agency's overall needs. The Council agrees with **Recommendations 5& 6**: *"PPI, PA&E and CFO shall work to reduce the workload required for participation in NOAA PPBES by simplifying and streamlining the NOAA PPBES Process", and "PPI, PA&E and CFO shall conduct a joint review of the PPBES process, culminating in a single business process model of PPBES".*

Recommendation #12 (*“Corporate NOAA shall manage the NOAA workforce requirements for implementing PPBES using “position management”*”), and especially #23 (*“Corporate NOAA shall move the positions of Goal Team Leads and associated staff to PPI or the lead PPBES office”*) will further disconnect PP from BE. One issue with #12 is that the positions in the Goal Teams will be “...staff(ed) with proven competencies in operations research, systems engineering, economics, and public administration”. Goal teams are generally staffed with highly competent people with backgrounds in relevant technical subjects, as well as computerized information management, social sciences and financial management. These are the skills needed to interact in an intelligent way with the program managers. This is where the value is added in the process. Linking operational parts of NOAA and maximizing cross-program and cross-goal synergy requires content knowledge not process knowledge. In this regard, **recommendation #4** (*“Corporate NOAA shall create dedicated staff positions filling them with personnel particularly qualified to fill the roles and functions within NOAA PPBES”*) already pertains to most Goal Teams.

Recommendation #23 does a great disservice to the hard work, balanced perspective and leadership of the current cadre of mission GTLs. All of the current GTLs are “housed” within a Line Office but have as one of their key operating principles to provide unbiased evaluations of diverse sets of alternatives and inputs from the Programs in their Goal. All of the GTs have been very successful in connecting parts of our organization to provide integrated, forward looking alternatives that take advantage of the dispersed skills of the Agency (e.g., across LOs). The burgeoning number of cross-program, cross-LO and cross-Goal alternatives is testament to this ability to work across traditional domains. Making decisions about which alternatives go forward in a resource constrained world is hard and there will always be issues of motivation. Lots of alternatives do not go forward in the process primarily because of the very constrained budget targets we have been given. The GTLs, in my estimation, need to be connected to the BE parts of the agency – this is a key element in their credibility to the rest of the agency and in the external environment.

The proposal for a 2-4 year planning cycle (#10) has merit and needs to be explored, but the authors consider it only to have low impact. One of the reiterated concerns of people involved in the PPBES process is that the process starts from scratch each year with slight changes in starting conditions necessitating significant process even for those programs for which there will be few changes. We suggest phasing work cycles so that some programs or capabilities provide “updates” in a particular year, while selected programs or capabilities “benchmark” their POPs in a particular cycle. There can be a number of criteria for what constitutes an update or a benchmark, and this would get at the reason for the proposal for a multi-year planning phase, namely work load.

Recommendations #18 (*“In identifying annual corporate priorities, PPI, PA&E and CFO shall ensure that the AGM, PDM, and DoC submit should choose pre-existing goals and objectives from the strategic plan”* [Note: the Research Council would add the 5 Year Research Plan to this set of guidance documents]) and #20 (*“PPI, PA&E and CFO shall improve the flexibility of NOAA PPBES to adjust to rapidly emerging fact-of-life changes and national priorities”*) seem

to be in direct conflict. The current NOAA Strategic Plan was drafted in April 2005. Clearly it is rapidly going out of date and will always be so given the rapidity at which NOAA's priorities get adjusted (e.g., legislation, natural events, political change). If given a choice, #20 is better.

To limit the disconnect between PP and BE in PPBES, the review team recommends moving the PPB functions into a single authority, but if execution remains disconnected from PPB (**Recommendation 21**), one of the key problems of PPBES will not be addressed. Organizationally, a potential alternative to address this disconnect is for technical (Goal and Program) leadership to reside in the unit responsible for achieving the technical objective, while realigning budget functions as needed to support leadership in planning, programming and execution.

Comments on Systems recommendations:

The report is clear in pointing out some of the weaknesses of underlying PPBES systems and cumbersome process:

- Better tracking and financial systems are recommended (recommendations 19, 24, 25, 27). Current system function limits the effectiveness of PPBES.
- Improve the efficiency of applying NOAA's PPBES. Better training, streamlining of process, removal of duplicative data calls (many recommendations, e.g. 1, 4, 5, 6, 7, 8, 9, 10, 14, 16, 26, 27)

Many of the recommendations add additional layers of process (e.g., 15, 19, 30), and create greater demands on an information system (14, 19, 24, 26) currently not capable of supporting both a traditional line office structure and a simultaneous matrix structure. The delays in implementing the "E2E" data management system should provide ample example of the difficulty and expense of doing so.

It would helpful for the report to include a recommendation on the appropriate level of detail in these systems:

- Increasing granularity from planning through execution phases is needed in the analysis and systems supporting the underlying activities/deliverables needed to achieve mission objectives. Large, complex programs, emphasizing research or development and/or operations, are difficult to convey with the existing mechanisms used for analysis; even smaller, more end-to-end programs are not well served by templates such as that used for POP analysis.

Editorial and Other Comments

Figure 1: there are several councils in NOAA what is the NOAA council referred to?

Page 10 in #3 Background and History line 4: Does the example refer to the pre-existing bureaus? If not, citing three of the LOs and not the others may not be clear.

Page 12 under the stated goals of NOAA Administrative Order first bullet: The term internal and external environments is not clear

Figure 3: the meaning of the side arrows is not always clear

Table 2 Why is there a - in the execution row?

Table 5: What does the black and green text in the Table 5 represent? Is it the low hanging fruit referred to in the opening of the last chapter? Are these the recommendations that should be implemented immediately?

Page 23 Lessons learned: We pass from PPB to PPBES without transition.

Page 24 second line efficiently meet public needs. remove 'meet'

Page 32 last line of the last paragraph before quotations: Is that correct? Increased support in form of funding? This is not obvious from the results we get.

Page 37 line 2: Remove repeated text.

Page 40 Poor communication third paragraph third bullet PPBES. The most problematic disconnect is bullet #2, since one group decides and the second one executes.

Page 42 Poor corporate decision-making: In this section, the fact that research is often penalized is not well emphasized.

Page 44 last Paragraph: This speaks of the problem for larger units, but it is a serious problem for smaller units too.

Page 49 top forth bullet: A lack of resources means...?

Page 49 Solution: More resources. With no increases generally associated with the PPBES process, that increase devoted to the process may have serious consequences for NOAA's ability to achieve its mission.

Page 51: If program managers communicate directly with Congress and if they are representing both their Goal and LO there is a conflict of interest!

Conclusion:

NOAA's efforts to improve/modify the PPBES process are to be encouraged. The team's report under review is an essential step in examining current practices and identifying a range of recommendations to be considered by leadership. NOAA can build a streamlined PPBES process that is responsive to its mandates, agile to new opportunities and transparent to its employees. The tremendous effort reflected in the comments and input into this document mean

that people want this system to work. This report should be actively considered and used to refine the PPBES in NOAA and it should be a key element of future process reviews. It should not, however, be viewed as a set of recommendations that can be applied without modification to address any shortcomings of PPBES in NOAA. Therefore, we encourage senior leadership to initiate a more structured dialog to address the shortcomings of the current system and capitalize on its positive attributes.

5) Observing Systems Council

----- Original Message -----

Subject: NOSC Review of PPBES Report

Date: Fri, 19 Sep 2008 14:20:19 -0400

From: Web Tileston <Web.Tileston@noaa.gov>

To: Gary C Matlock <Gary.C.Matlock@noaa.gov>, Michael Abreu
<Michael.Abreu@noaa.gov>

CC: Jack Hayes <Jack.Hayes@noaa.gov>, Mary Kicza <Mary.Kicza@noaa.gov>, Pamela
Taylor <Pamela.Taylor@noaa.gov>, Web Tileston <Web.Tileston@noaa.gov>

Gary and Michael,

I'm sending this on behalf of Jack and Mary. We circulated the report among the NOSC members and solicited input. Although we received some comments, we can sum up our feedback in the following manner. The NOSC believes the report does a good job capturing the strengths of the PPBES process and also bringing to light those areas that still need work. We believe the process has enabled NOAA to achieve compliance with external demands for improved strategic management and performance-based budgeting. After three full cycles, it was a good time to step back and review the process, and we're confident that this report will set the stage and facilitate NOAA's ability to fine-tune the PPBES. We look forward to participating in efforts to improve the PPBES where appropriate.

Web Tileston

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Barzelay and Winter Responses to Draft 2 (19 September)

Drs. Barzelay and Winter stated that NOAA's use of PPBES as a management tool "is one of the more complicated stories [they have] ever had to parse." The professors overall reaction to the report was that it was "quite a remarkable document," considering the significance of the charge, time pressure, diversity of opinions. They indicated that the report "deserves serious attention," but they were unsure what reforms were feasible.

Regarding methodology, the professors believed that the questionnaire was the most solid, systematic instrument, but expressed concern about a possible response bias (indicating that a 43.5% response rate for an internal study is somewhat low). They wondered what the difference might be between those who responded to the questionnaire and those who did not, and whether the sample was representative of the population, particularly with respect to:

- different offices,
- scientists vs. non-scientists,
- those with duties in NOAA's regulation services vs. information services,
- those on NOAA's "PP" side vs. "BE" side, and
- producers vs. consumers of PPBES information.

They also noted that the unsolicited responses were more negative than the solicited responses, and wondered whether the constructive suggestions were coming from those with negative feelings.

Barzelay and Winter stated that, with respect to the charge, the cost question was not reported, but acknowledged that this would be very difficult to extrapolate. Likewise, the question of whether the benefits outweigh the costs was not answered, but they acknowledged that there is no universal understanding of benefits.

The message that the professors took away from the report was that "an awful lot of burden goes into this system," but that the "benefits are rhetorical" and "not accepted by people." They found that this message was "clear and emphatic," "not unexpected" and "consistent with what we have heard in our interviews."

The core problem that they found is that congress is not going to change its ways of categorizing things and that, as long as this is true, a system such as PPBES will be "fairly painful." The only open issue, then, is how do you work around it; they stated, "a lot of experience shows that there really is not a magic solution." Rather, the agency should make conscious efforts toward better alignment.

In this vein, Barzelay and Winter read the report to say that there is a sense (albeit vague) that the organization is better off because of PPBES; the fact that there is an organizational skill or "connoisseurship" that has developed is a "cultural achievement." This is realized primarily in improved quality of conversation, rather than more tangible benefits. However, participants do

not see consequence in the process, there is particularly strong discontent, and the urgency to fix it is therefore high.

As a “technical fix,” the professors focused on whether solicitations for data could be controlled and whether year-to-year process changes can be reduced. For “non-technical fixes,” they focused on – and agreed with – the recommendation to factor previous year's appropriation into the current year's process (Recommendation 8 of Draft 2). They acknowledged the organizational need to get line offices accountable for execution, though this would be a retreat from the intentions of PPBES. The professors were not, however, convinced of the need for (or possibility of) performance accountability of the PPBES process itself.

Barzelay and Winter's final, larger recommendation with respect to PPBES was that NOAA assess what types of orthodoxy it wants to retain and what types it wants to abandon. They suggested that something a little less orthodox, with more “hands-on by leadership” but a “lighter touch” of bureaucratic method could work better. They provided an example of success from the European Commission where managerial responsibility was pushed down, alleviating the difficulties of rational analysis for those at the top.

Findings and Recommendations of Draft 3 (28 October)

The Deputy Undersecretary's charge to the Team was to elucidate 1) the benefits of NOAA's PPBES, 2) its costs, 3) the degree to which the former offsets the latter, and 4) options for improving the value of PPBES to NOAA. This section presents our findings (one general, ten specific) that address the first three elements of the charge and a number of recommendations that could be considered by NOAA to address the fourth element of the charge.

We acknowledge that the report does not provide a quantitative cost/benefit analysis. Indeed, during the progress report to the NOAA Executive Panel (NEP) on 11 August 2008, we specifically informed the NEP that such an analysis would not be forthcoming. This inadequacy results primarily from the lack of comprehensive, quantified cost data (direct, indirect, and opportunity costs) and quantifiable estimates of benefits readily available to the Team.

Absent these data, we were unable to estimate quantifiably any cost benefit ratio. Direction provided by the NEP at that time was that pursuing a cost/benefit analysis of NOAA's PPBES was not necessary, and we have made no additional attempts to obtain the types of quantitative data needed. However, we would argue that we have adequately captured a current view of NOAA's implementation of PPBES from the qualitative information gleaned from the questionnaires, Focus Group session, Working Group review and comment, NEP response to the initial findings and presentation, and review and comment of the NOAA corporate Councils and of Drs. Barzelay and Winter. Nonetheless, it is important to make clear that the interpretation and representation of those views presented in the report are those of the authors.

While the Team was unable to conduct a cost-benefit analysis, evidence suggests that organizational units are experiencing a strain on financial and human resources as they try to meet the demands of PPBES. There was a consistent expression by the participants in the review that the analytic complexity of and precision sought by the PPBE system, including the demand for data and information to satisfy the inputs and outputs of the system, is imposing fiscal, human resource, and emotional costs which are generally viewed as greater than the expected benefit of budget increases.

Regardless of any claim about benefits relative to cost, there is no question that NOAA will continue to be required to operate some type of performance based budgeting system to comply with federal law, policies, regulations, and societal expectations of "good government" (perhaps most importantly, the Government Performance and Results Act). We, therefore, conclude – and the comments collected support – that NOAA's current PPBES should be improved, not eliminated, in order to best satisfy these requirements.

Findings and recommendations provided below are drawn from a variety of inputs, including the research instruments detailed in previous sections (questionnaires and Focus Group), the literature review, comments from the Working Group, the personal experiences of the Team, as well as informal discussions that team members have had with NOAA personnel across the agency. All opinions communicated to the Team were considered, though not all were

necessarily incorporated into the report. It is worth noting here that the findings derived from the experiences and perceptions of people at NOAA should not be surprising; they largely parallel the results of other agencies that have implemented PPBES (see *Lessons Learned* in the *Background: History and Theory of PPBES* chapter).

General Finding

To the extent that it meets the goals and functions of the NOAA Administrative Order, PPBES is a valuable system for NOAA and should be maintained. However, based on this study, there is no organizationally agreed upon measure of PPBES success. As a result, there is neither universal understanding nor acceptance of the purpose of the PPBES process, even though our review of the literature and of NOAA's implementation material reveals a very consistent explanation (see section 3). The objective of PPBES is the intelligent allocation of scarce resources against strategic, corporate priorities, but the misperception that PPBES is a process to increase the budget persists.

In fact, simply asking, "Has the budget for your organizational unit increased (or decreased) since NOAA's Adoption of PPBES?" in its questionnaire reflects the Team's own inappropriate use of budget changes as a metric for PPBES success. Because of this misperception, individual office or program interests, rather than corporate or national interests, still dominate conversation within the PPBES process. Without modification, individual office interests will continue to dominate. However, there is the perception that PPBES has led to more thoughtful and thorough justification of budgets submitted to DoC, OMB, and Congress.

By formally implementing a planning, programming, budgeting, and execution system, NOAA is attempting to do something new to its own organizational culture, and ambitious within the federal, civilian (i.e., non Department of Defense) government as a whole. It is reasonable to expect challenges when embarking on such a novel and significant endeavor. Indeed, NOAA has encountered difficulties in implementing PPBES, but has responded by adjusting its system to address those challenges. Past improvements to the system include: identification of goals for a new approach to performance-based planning and budgeting system (i.e., the PRT Report); creation of a new strategic plan; creation of an administrative order defining the goals of its new system; creation of a program structure and two new offices to facilitate the system; establishment and augmentation of annual schedules and milestones. These changes have been made over the short term and, though not perfect, they have moved NOAA well along the path of its goals, which are:

- To continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- To ensure NOAA satisfies statutory and regulatory duties assigned to it;
- To attempt to satisfy the highest priority needs of NOAA's customers; and
- To improve resource utilization.

NOAA's approach is an excellent way to manage responsibly the public's financial resources. Moreover, this type of system is required by federal law, executive order, supported by NOAA

and federal government leadership, and is consistent with principle of “good government.” Therefore, NOAA should continue its PPBES to improve its operational efficiency.

Specific Findings

In addition to the general finding above, the Team derived a number of specific findings, presented below in no particular order:

Culture: NOAA's culture is changing for the better because of PPBES; among NOAA's workforce (employees and contractors) there is now more openness, collegiality, cooperation, and coordination relative to planning and program development. NOAA could foster the burgeoning collegiality among individuals by facilitating the execution of plans developed through partnerships across units. However, even though NOAA's workforce is more familiar with the analytical rigor expected within PPBES, it perceives itself as unable to deliver that rigor and thus is a workforce that, per the results of this study, is unsatisfied, frustrated, overworked, and ultimately inefficient. This is often due to issues of structure and complexity.

Cost: Implementation of NOAA's PPBES has generated direct, indirect, and opportunity costs beyond what was previously spent across NOAA on Strategic Planning, Budget Formulation, and Budget Execution. For example, there is now a new Line Office (PPI), a new Staff Office (PA&E), and new support positions for many of the Goal Teams, Sub-Goal Teams, and Program Teams that are dedicated to the development of Plans, Programs, and Budgets for submission to NOAA. In addition, the NOAA employees who serve on the various Teams do so in addition to performing the responsibilities of Line Office positions and are now often responsible to more than one supervisor. However, the exact costs of PPBES are difficult, at best, to determine. PPBES cost data are generally not routinely collected, and even those data that are collected are of unknown quality, are not readily available, and difficult to interpret.

As such, an accurate representation of the costs of PPBES at NOAA is beyond the capability of this study to assess based upon the data collected. A much more detailed study would be required to capture the financial costs of PPBES at NOAA – an undertaking that has been decided against by the NOAA Executive Panel.

Complexity: One of the most frequently cited problems with PPBES stems from the on-the-ground running of the system. Reactions were visceral. Respondents described PPBES with words such as: cumbersome, confusing, redundant, justification to death, process heavy, esoteric, painful, inefficient, counterproductive, frustrating, chaotic, out of control, constant struggle, inflexible, make work, unwieldy, intrusive, oppressive, run amok, and a waste of time. This may not necessarily be a result of PPBES itself, but of NOAA's implementation of it, particularly through what was perceived as an excessive number of requests for information.

Workforce: Participation in PPBES is viewed as an additional duty placed upon existing federal employees whose job classifications do not include PPBES as a primary function. Program staff is currently supplemented by a contract workforce – some of whom may be more suitably trained in PPBES activities, but lack the resident knowledge of NOAA operations. This imposes an opportunity cost upon core mission functions and, at the same time, means that PPBES functions are not performed by specialists in program analysis; thus, the perception is that neither function is being performed adequately. In all phases, and especially at the lower levels of the organization, it is often the same people who perform multiple, redundant analytical tasks. The result is a workforce that is frustrated with the process (see “Culture” finding above).

Communication: There is a perception that PPBES has resulted in improved communication across NOAA. Although improving within each phase of PPBES, the perception is communication has improved mainly within the planning phase. However, the perception is that communications improvements have not been so successful across PPBES phases. Corporate intent from Planning to Programming to Budgeting to Execution is perceived as being neither stable nor transparent, and that there is insufficient feedback to those working in prior phases on how prioritization decisions are made in the current phase.

Synchronization: There is a perception that there are significant disconnects among the phases of PPBES, particularly between “PP” and “BE,” and including insufficient feedback from execution through actual appropriations back into the planning and programming cycles. Where integration has occurred, it has been primarily in the planning phase. There is no well-understood process to incorporate performance and decision-making feedback from the budgeting / execution phases into the new planning phase. This includes performance as indicated by performance measures as well as analyses of successful budget requests (or failures). This may be preventing the potential benefits of an integrated PPBES from being realized.

Organization: The study revealed the perception that NOAA has segregated, or has at least not sufficiently integrated, the responsibilities of those who plan and program from those who budget and execute. (This has occurred primarily in line rather than staff offices.) Where segregation has occurred, there is the perception that those who plan and program for an activity often do not share the same concerns of those who budget and execute it. This exacerbates the problem of communications across phases and missions and the problem of a workforce that wears multiple hats and has divided portfolios. Further, it creates multiple, potentially conflicting authorities.

Information Technology: The perception exists that the on-the-ground PPBES workforce does not currently have access to a mature and truly "end to end" information system. Tracking budget elements across phases and across structures is difficult, if not impossible. Multiple, disjointed systems, either in place (CasaNOSA, PIRS, budget systems) or evolving (E2E), are presently insufficient for performing the complex analytical functions inherent in PPBES.

Implementation: PPBES process is not uniformly implemented across NOAA. Different Goal Teams implement their roles within the PPBES process differently and therefore functionally execute those roles differently. Similarly, Line Offices implement their roles within and execute the PPBES process differently. These differences of implementation, that is, the differences in implementing the PPBES process between similar organizations, exacerbate the communications and complexity issues being experienced.

Compatibility: The perception exists that trade-off analysis, which is the core of PPBES, may favor some programs over others because some programmatic outputs are easily quantified from a cost benefit perspective and tend to do better than those outputs that are harder to quantify. In particular, this put research programs at a disadvantage. In addition, mission support and administrative functions have a more difficult time fitting into the PPBES process as implemented at NOAA because their work depends almost entirely on what the mission goals plan, program, budget, and execute.

General Recommendation

PPBES at NOAA should be and must be maintained. In other words, NOAA's current PPBES should be improved, not eliminated. NOAA is making substantial progress toward the goals stated in NOAA Administrative Order (NAO) 216-111 (2007) and with respect to the findings of the PRT. Though we cannot determine the exact degree of this progress without metrics, the information collected in this study is more than sufficient to indicate that progress is occurring.

Participants of this review indicated that PPBES has produced the benefit of increased openness and communication. This supports the recommendation that NOAA should maintain PPBES, and validates that the system has value. Participants in this review also cited the benefits of better articulation and defense of budgets to the Department of Commerce, to the Office of Management and Budget, and to the Congress. This also supports our assertion that the PPBES system at NOAA is successfully meeting the Agency's expectations, as well as the requirements set forth by the letter and the intent of federal law, policies, regulations, and societal expectations of "good government." Together, these benefits support the conclusion that not only should NOAA maintain the PPBES system, but that NOAA must maintain it.

Specific Recommendations

Though NOAA is making substantial progress with PPBES, like all management and decision support systems in any organization, it is not perfect. The same respondents that so clearly indicated that PPBES needs to be maintained, also indicated that, benefits aside, PPBES, as it is implemented at NOAA, should be improved. The respondents expressed varied opinions and suggestions on how those improvements could be made and the following discussion considers those suggestions and the problems respondents hope to address through those suggestions.

It is important to acknowledge that the problems associated with NOAA PPBES are multifaceted and difficult to separate. As a result, among the recommendations articulated below there is no one recommendation that will address all of the issues identified throughout this report (many recommendations apply to more than one finding). Many of the recommendations were drawn from suggestions of questionnaire respondents, the Focus Group, and the Working Group. (For further detail on these, please see the relevant sections of this report.) Others were drawn from the history and theory of PPBES and from the experiences of the Team.

As a result of the discussions at the NEP, the Team was asked to provide specific recommendations it believed were simple and relatively costless to implement in the near term (so-called “low hanging fruit”), as well as recommendations it believed were the most important to implement over the long term. However, the Team felt strongly that the recommendations had to also be inclusive of the comments, responses and recommendations collected and considered during the review.

The Team originally developed 31 separate recommendations. These 31 original recommendations were developed with two specific thoughts in mind. First, it was an effort to provide a high degree of specificity in the recommendations the Team offered to NOAA’s leadership for consideration. Second, it was to be open to and accommodate the multiple and divergent suggestions that had been offered from across all participants. Throughout this study, the Team was always driven by the desire to make sure every voice was heard and to not disenfranchise any group who contributed to the PPBES review study. From the comments received from the NOAA Councils and from Drs. Winter and Barzelay, it was clear that we went too far. Specifically, the majority of these comments indicated that we developed recommendations at a level of specificity that was not supported by the data that we had collected. In short, that the Team had imparted too much of its own interpretation of how to best address the problems raised by the participants of the study.

As a result of these comments, the Team re-evaluated the recommendations originally provided in the earlier draft. The driving force in re-evaluating the recommendations was to not have the recommendation exacerbate problems that had surfaced in the review. For example, many of the complaints raised were of complexity and bureaucracy in the PPBES process. If it was believed an earlier recommendation may have addressed a specific concern, but increased overall complexity or bureaucracy, or caused problems elsewhere in the PPBES process, it would not have the desired result. Consequently, the Team developed recommendations for NOAA’s consideration at a level of specificity analogous to the level of the findings rather than recommending specific, directive steps that NOAA should take in order to address a specific problem.

The result was a reduction in the number of recommendations from 31 to 11. Many recommendations were combined others were deleted. Additionally, we arranged the recommendations as answers to the four most pertinent questions that evolved from our findings:

- *What can we readily do to make NOAA’s PPBES easier and more effective?*
- *How much and what kind of information and analysis are appropriate?*

- *How do we facilitate traceability between structures (program and organization)?*
- *How can alternative managerial practices facilitate NOAA's PPBES?*

The recommendations below represent a menu of possible options, which NOAA may choose to implement piecemeal or in combination. We identify an array of suggestions that alone or, more desirably, in combination might lead to improvements in NOAA PPBES. It was not possible given the review methodology to prioritize the problems and recommendations objectively. Given the previously stated limitations of this review, a more thorough analysis may be necessary before deciding to implement any of these recommendations.

Though it is beyond the scope of this review to vet the various recommendations from cost-benefit perspective, in this first set of recommendations the Team has attempted to address the question:

What can we readily do to make NOAA's PPBES easier and more effective?

To address this question, NOAA should consider the following:

1. **Provide consistent corporate messaging as to the purpose of PPBES, and develop commensurate performance metrics for PPBES itself.** The metric most commonly used by NOAA employees to gauge the success of PPBES - and often referenced by NOAA leadership - appears to be budget increases of individual components of NOAA. Yet this metric assumes that the benefits of PPBES accrue to NOAA (or a NOAA component) itself, rather than to the nation that NOAA serves. If the budget increase metric did indeed accurately gauge PPBES success, one might conclude that PPBES has been successful because the NOAA budget has increased since PPBES implementation. But even in this case, many review respondents dispute that budget increases for their individual activities are attributable to PPBES, or claim that PPBES is not successful because their budget did not grow. These perspectives exemplify the complications of using budget increase as a metric.

There are currently no formal performance metrics of PPBES, but Sections 1.02 of NAO 216-111 (see Appendix 2) already define success in a general way by laying out broad goals of PPBES:

- To continuously and systematically assess internal and external environments to anticipate future opportunities and challenges;
- To ensure NOAA satisfies statutory and regulatory duties assigned to it;
- To attempt to satisfy the highest priority needs of NOAA's customers; and
- To improve resource utilization.

NOAA should explore means to make these goals measurable and tangible. There needs to be an entity responsible for developing these metrics, for re-evaluating them, and (as necessary) for updating them over time. These metrics could then be used by corporate offices to gauge the performance of the PPBE system itself.

- 2. Simplify and streamline PPBES processes to reduce workload.** PPBES is an information intensive system, but not all of the intensity results from process itself; some of the intensity results simply from the opportunity to ask for and offer new information. To reduce the analytical strain on staff, corporate offices, Line Offices, Goal Teams, and Councils should work to coordinate their efforts to determine if requests for information are truly necessary, not redundant, and clearly lay out what information is needed. They should provide staff with sufficient time to respond to data calls completely and thoughtfully. Data collection instruments should be designed, and explained in a manner that the recipient can easily understand the request and provide the information that is needed rapidly and with minimal effort. Conversely, recipients of information requests should ensure that responses contain only that information that is requested and that is necessary to answer the question .
- 3. Increase transparency of decisions made in each phase.** Decision-makers in each phase should strive to communicate the reasons for program and budget decisions to those in previous and subsequent phases, including execution to planning, and attempt to make those decisions as transparent as possible. End-of-phase briefings, for example, could provide valuable feedback to those making budget requests in subsequent phases and years. Similarly, the PPBES IT support system could account for how and when decisions were made at each step in the budget process and why certain items were either successful or unsuccessful.

Moreover, to shed light on the level of financial commitment to implementation of NOAA corporate strategy in each phase, program portfolios (base activities and proposed alternatives) developed during the Planning phase should be tracked through the Programming, Budgeting, and Execution Phases, making a decision trace available (see *How Could We Track the Success of Annual Priorities?* in Appendix 5). The tracking should include the relationship to each year's Annual Guidance Memorandum, the identification of any modifications, inclusion (or deletion) in part or in total, and ultimate disposition as contained in the President's budget request to Congress. Such information could then be used in developing the Line Office Annual Operating Plans and subsequent year's AGM priorities.

We understand that it is impossible to relate every decision made throughout the PPBES process to each stakeholder affected by those decisions. As with any system, there will always be members of the NOAA PPBES community who will feel disenfranchised because their questions regarding decisions impacting their specific programs are not specifically answered. That level of transparency may be difficult, if not impossible, to achieve, but that should not prevent attempts to improve transparency. NOAA should strive to better communicate the major strategic decisions of the PPBES process to the PPBES participants through the chain of command.

- 4. Provide PPBES training broadly to NOAA staff.** Training is essential to establishing a shared understanding of the purpose of and possibilities within PPBES. Such training

should emphasize that PPBES is a tool to optimize corporate strategic performance with finite resources, not a tool to increase budgets. It should be made available to the “rank and file” as well as through all levels of managerial and program staff. The PPBES training should include techniques of performance management and strategic planning. NOAA has unique needs for performance evaluation, particularly in the domain of research and the administrative functions of staff offices. There are many techniques available for the valuation of research and other intangible, public goods. Such techniques may serve to diminish the angst the workforce feels in not being prepared to adequately perform the duties required in PPBES.

5. Develop a “community of practice” for NOAA PPBES. NOAA should consider supporting a means of networking for policy and program analysis professionals at NOAA, such as professional events and discussion forums. NOAA currently relies heavily on websites to accomplish networking. The NOAA PPBES website could benefit from an ongoing review and, as needed, redesign the PPBES website to facilitate such exchanges. In an effort to foster the use of common terminology among PPBES participants, the renewed website could include a PPBES terms of reference and a standard lexicon. It could also enable on-line dialog and trouble shooting of common issues.

PPBES necessarily requires more information and more analysis; the heart of PPBES are rational and comprehensive programmatic tradeoffs, which require information on all program requirements, costs, and benefits, and require time and expertise devoted to policy and program analysis. PPBES will always demand more information and more analysis. Thus, with the second set of recommendations, the Team addresses the next question:

How much and what kind of information and analysis are appropriate?

To address this question, NOAA should consider the following:

6. **Conduct a comprehensive PPBES process review.** The review should seek to describe PPBES processes with the intent of standardizing them across like entities and making them simpler, more effective and efficient for all parties involved. It should attempt to account for specific information needs, the interrelation of particular PPBES products, the scheduling of tasks among offices, feedback across phases and from DoC, OMB, and Congress, as well as the particular requirements of Goal Teams, Programs, Line and Staff Offices, Councils, and Regional Teams.

The review should result in a high-level “architecture” of PPBES business processes, inputs, outputs, and throughputs – similar to architectures for IT systems. The architecture would provide a model for the “as-is” state of NOAA PPBES, and for the envisioned “to-be” state. The “to-be” architecture should be codified in the NOAA Business Operations Manual (BOM).

The Team recommends that NOAA consider the following options when detailing the PPBES process architecture:

- Clarify and standardize the roles and responsibilities of participants. This would necessitate an analysis of current and desired PPBES process structures and accountability mechanisms.
- Incorporate Congressional appropriations from previous years into the assumptions of planning, programming, and budgeting. Consider and, as required, adjust planning and programming guidance according to current and historical Congressional appropriation trends.
- Consider implementing a 2-4 year planning cycle, as opposed to an annual cycle. Planning for every NOAA program every year may not be necessary and may not be an efficient use of resources. Lengthening the planning cycle could reduce workload and a re-focusing of efforts where needed.
- Link execution to corporate performance measures, including GPRA measures, to guide future planning, programming, and budget development.

7. **Formalize the roles and responsibilities of the PPBES workforce.** As a general rule, specialization of labor increases efficiency. NOAA should consider modifying the position descriptions of those performing the duties of PPBES (over time, perhaps as existing positions within NOAA become vacant) to recognize the unique analytical expertise that PPBES requires, the opportunity costs imposed on core missions by PPBES activities, and the multiple roles of the individuals within the PPBES process.

PPBES necessarily entails a dualistic view of the agency; there must be both a program structure (defined by strategic goals and objectives) and an organization structure (defined by appropriation lines, often outside of NOAA's control). There will always be some degree of complexity involved in tracking items between "two sets of books." Thus, the third set of recommendations address the following question:

How do we facilitate traceability between structures (program and organization)?

To address this question, NOAA should consider the following:

8. **Fully implement the information technology tools for tracking items across structures.** Develop and implement information technology tools for tracking items across structures as soon as possible. A single, "end-to-end" budget and management information system is necessary for PPBES to function effectively and efficiently. NOAA should continue work toward a mature information system that simplifies processes and enables tracking of information across phases. The findings of this study should be considered in refining user requirements of such an end-to-end information system.

- 9. Ensure consistent definition and labeling of a limited number of priorities.** If everything is a priority, then nothing is a priority. A limited number of clear, discrete priorities centrally determined by corporate NOAA, at the outset of planning, is a necessary element of PPBES. It would help focus and streamline planning by the rest of the agency, reducing the resources expended to produce lower priority Alternatives. Corporate priorities established in planning should remain consistent through the subsequent PPBES phases. In identifying annual corporate priorities, NOAA should ensure that the AGM, PDM, and DoC Submit reflect this consistency of language, such that priorities are linked directly to goals and objectives in the strategic plan. This would facilitate the tracking of priorities through all phases of PPBES.
- 12. Better align the program and organizational structures.** A historical look reveals that one important criterion for an agency's successful implementation of PPBES is the degree to which its program structure is parallel with its organizational structure, and thus the degree of simplicity in tracking items back and forth between them. One possible way to realign is to change the program structure (by changing strategic goals and objectives). A second way is to change the organization (by changing appropriation lines). Another possible way to realign is to change the relationship between the structures (by changing the crosswalk, i.e., the "common denominators" – see Appendix 5). To facilitate better alignment between structures, in the development of the next generation Strategic Plan, NOAA should consider more closely linking the Goal/Program structure with NOAA's execution of its authorizations and appropriations.

PPBES does not necessarily entail matrix management; the fact that there are two structures (for the program and for the organization) does not mean that there needs to be two managerial hierarchies, with distinct and often divergent cultures and vocabularies. Planning, programming, budgeting, and execution can be performed by a single hierarchy and within traditional organizational roles. The final recommendation therefore address the question:

How can alternative managerial practices facilitate PPBES?

To address this question, NOAA should consider the following:

- 11. Align PPBES Programs with FMC managers.** Executors should develop strategies within the scope of their own portfolios. Where applicable, NOAA should consider equating the execution programs ("lower-case P programs") with the strategic programs ("upper-case P programs"). The intent would be to make the "program" the lowest common denominator of both structures, and make the responsibilities for planning, programming, budgeting, and executing programs reside with a single individual. It would also mean that matrix management, per se, would only occur above the level of the program, that is, between Goal Teams and Line Offices, rather than between distinct strategic and execution programs.

NEP Member Responses to Draft 3 (14 November)

Comments offered on third full draft of PPBES final Report, issued 31 October 2008:

- 1) William Corso, NOS Deputy Assistant Administrator
- 2) Philip M Kenul, OMAO,
- 3) Ellen Mecray and OAR PPBES Tiger Team
- 4) John Oliver, NMFS Deputy Assistant Administrator

1) William Corso, NOS Deputy Assistant Administrator

To: Michael Abreu and Gary Matlock

From: Dr. William Corso, NOS Deputy Assistant Administrator

Date: November 14, 2008

Re: NOS Remarks on the PPBES Review Report

Thanks for allowing NOS review of the PPBES Review Report. In addition to the co-chair role, NOS served on the focus group and working group and looks forward to continuing service to improve PPBES. NOS earlier partnered with OAR to provide comments; for this review, a representative from each NOS Program Office was encouraged to comment as follows:

Section I: NOS Specific Comments on the PPBES Review Report

Table of Contents (Background)

- Shift the following sections to the Appendices as they are less pertinent to the review of NOAA's PPBES.
 1. PPBES at Other Agencies
 2. Modern Performance Budgeting

Executive Summary

- Overall Comment: The Executive Summary seems disconnected from the main sections of the report. The summary gives PPBES good marks calling for minor changes, while the report calls for more substantial changes.
- Page 1: Does the NAO, 216-111, represent a rigid precedent that does not allow for flexibility in adapting the system as NOAA grows and changes.
- Page 2, 2nd para, last sentence, we, therefore, "suggest" rather than conclude (no conclusions without the full analysis).
- Under General Finding, 1st para, cite the aspects of PPBES that make it worth keeping. Under 2nd para, is PPBES "new" after being in place for 5 years? Cite ways in which NOAA is "adjusting PPBES to address challenges? Consider amending the sentence, "The approach taken by NOAA is the right thing to do to responsibly... to "Responsibly managing the public's financial resources is required by Federal law."
- Cost: Comments: If NOAA is going to assess the effectiveness of PPBES, costs and metrics of evaluation need to be included in the document. Follow up with a cost-benefit analysis putting a cost to what we are doing now so we have a basis for future evaluation. Specific Comments: Be transparent about what NOAA has done or plans to do to resolve the issue of analyzing the costs of PPBES, to create a baseline, and ensure changes that improve this aspect of the system.

- Page 3: Workforce: at the end of the last sentence, add “or budget formulation.”
- Synchronization: Comment: May be preventing costs to be measured.
- Organization: Should address issues of authority, now that we have 47 programs.
- IT: It is factual to note the collective concerns of employees for PIRS and CasaNosa.
- Implementation: Explain how PPBES is implemented differently among LOs and Goals.
- Compatibility: There is an additional need to have a standard format for documenting requirements.
- Page 4: General Recommendation at top: First 2 sentences say the same thing. Explain how progress is occurring in PPBES.
- Under “NOAA should consider the following”: most important piece is cost baseline.
- Under #s 1-5 in middle: Add: Use budget specialists to develop budgets. In para that follows, explain what is being compared.
- Under #6: determine baseline investment and costs.
- Under para after #7: PPBES ... entails a dualistic view...its NOAA’s IMPLEMENTATION that does.
- Page 5, under #9: Comment: labeling a limited # of priorities (may help eliminate wasted effort).
- Summarize with why authors recommend keeping PPBES, for example, it may be more costly to change to a different system; waiting for guidance from the new Administration. Specify what aspects of PPBES to keep and/or change.

Charge for PPBES Review

- Dates are missing from para 4. Should the DUS letter be an appendix?

Problem: Poor Communication

- Page 42, last para, beginning “Respondents...”, this seems more like a new section.

Summary of Solutions

- Solution: More Resources: why is this is a solution as opposed to a scoping mechanism for the process? Resources for changing the process are available for simplifying it.
- Solution: Radical Restructuring: Utilize PA&E expertise to evaluate programs outside the PPBES review process.

Recommendations

- Suggest dividing the first bullet into two bullets (i.e., on corporate messaging and the other on performance measures development).
- Seems like the recommendation to "Simplify and streamline PPBES processes" is very closely related to "Conduct a comprehensive PPBES process review." I am a bit

confused, since it appears that this report is the result of a comprehensive PPBES process review.

- Additional recommendations: To review, on a regular basis, NOAA's implementation of PPBES to ensure that the agency is investing wisely.
- Please explain what this means: “a more thorough analysis may be necessary before deciding to implement any of these recommendations.”

Section II: General Comments on the PPBES Review Report

Transparency

- The PPBES review process should be transparent. An appendix or supplement could summarize all comments received during this review and how they were addressed in the report. If not addressed, the report could explain why not.

NOAA’s “Partners” Giving Input into Improving PPBES

- Consider how to collect and feed partner input into the PPBES process.
- Was input solicited from contractors on PPBES? How many contractors support PPBES and their roles and responsibilities? Contractors and other staff who work “in the trenches” should be able to comment.

Technical and Other Changes to PPBES

- Stagger POPs only if part of the POPs are staggered (for instance, staggering update of the Program Charters). Otherwise, Programs need to be "in the game" and fight for their needs each year. Perhaps, you could require a POP at least once every 2 - 3 years, but make it optional in any given year.
- Some recommendations refer to “PPI and PA&E should....” There should be a 'feedback' element from the rest of NOAA involved in PPBES before PPI or PA&E improvements are implemented. PPBES experts outside of PPI and PA&E will have valuable input based on execution experience.
- Consider consolidating sections and moving some items to the appendices and/or eliminating some of the appendices.
- If there were not any substantiated statements that "PPBES should be maintained, and that strategic planning supports "good government", consider adding them if warranted. A good government system does not demoralize staff, it empowers staff to do their jobs. From the findings, consider articulating how PPBES improves workforce morale.

Process for the Review

- Timing of this review could have been better. Some staff who were heavily involved with PPBES were asked to comment and thereby broadened your opinion pool, but did not participate. Many of them feel PPBES is too time consuming and frustrating.

More Education and Training on PPBES Needed

- Since NOAA is going to continue PPBES, they must mentor staff in this process with training beyond guidance material. Technical and other substantial skills are needed to navigate through this complex process.

Metrics for PPBES

- There is no organizationally agreed upon measures of PPBES success; however, the report misstates that there is a widely held misconception that PPBES is a process to increase the budget. NOAA staff understands this is a process for identifying priorities. A flaw is that PPBES implementation starts with a bottom up approach (i.e., POPs) of addressing vague agency priorities (i.e., AGM). When programs are provided with general guidance that emphasizes a wide range of agency capabilities, each program must position itself to make the most effective argument for its priorities, rather than work across the programs/agency to address a very discrete priority. NOAA leadership should express clear and focused priorities and work with the programs to find effective solutions (whether they be redirections or budget increases) to address those priorities.

2) Philip M. Kenul, OMAO

Subject: Re: PPBES REVIEW

Date: Wed, 12 Nov 2008 14:47:54 -0500

From: Philip M Kenul <Philip.M.Kenul@noaa.gov>

To: Gary C Matlock <Gary.C.Matlock@noaa.gov>

We believe the report does a good job of capturing the strengths and weaknesses of the PPBES process. Clearly, this system, like many others, has room for improvement. Concur with the findings, especially with regard to the complexity, workforce requirements, synchronization and implementation, though all have merit. One minor addition to consider in the IT section is the lack of a financial system that lends itself to data mining and cost management (understanding). These systems as currently configured inhibit our ability to extract the historical data to an appropriate level of detail to perform the rigorous analysis expected in PPBES.

CBS & MARs are good financial management systems, but are cumbersome systems to manage in order to get the level of detail required for rigorous analysis. A couple line offices are adapting within the flexibility provided in the project and task codes, but this requires manual inputs frequently exceeding 2,000 combinations. This may be automated eventually, but our current ability to extract historical information is limited. In addition, one group is adding a decision support tool to help analyze some of the data. Recommend CBS/MARs systems be added for consideration as information technology "presently insufficient for performing the complex analytical functions inherent in PPBES.

Thank you for the opportunity to comment.

PMK

3) Ellen Mecray and OAR PPBES Tiger Team

Point Paper

NEP Virtual Review: PPBES Review Report

Originator: Ellen Mecray and OAR PPBES Tiger Team

Office: OAR/PPE

Date: November 14, 2008

Purpose

- Provide comments to NEP representative from OAR for submission to the virtual review of the PPBES Review Team final draft report.

Background

- On May 16, 2008, DUS Glackin charged the leaders of PPI, PA&E and CFO to conduct a review of the PPBES process with a report containing findings and recommendations due the end of August, 2008. An approach was suggested that the leads, Gary Matlock and Michael Abreu, were to assemble a working group from across NOAA, conduct surveys, and be sure to get a broad cross-section of input from all of NOAA.
- A detailed timeline is included in the report that includes: the questionnaire, the focus group, the working group, and briefings to the NEP.
- Councils reviewed and provided comment (see previous point paper, dated Sept 11, 2008)
- NEP Virtual review comments are due COB November 14, 2008 to Matlock/Abreu.

Discussion

- Page 1- the charge from the DUS was to evaluate the costs, yet on page 2, the report states that a cost-benefit analysis was not conducted and later that ‘evidence...findings...and conclusions’ were made. A complete analysis of the PPBES process would include, as the Working Group recommended, a more thorough cost-benefit analysis prior to acting on conclusions without the initial analysis.
- The phrasing in the findings contains a mixture of objective and subjective terms, suggest restricting the comments to objective terminology. Examples include: Page 2- the finding on culture states that ‘NOAA’s culture is changing for the better...’ Also on Page 2, the general finding says that “the approach taken by NOAA is the right thing to do...” and that PPBES “should be and must be maintained...”
- The findings on Communication, Synchronization, and Organization are all stating the same observation, that there are gaps between the phases of the PPBES process. Suggest consolidation with a focus on the process itself.
- Page 51- Prior to committing more resources to PPBES, efforts should be made to measure the baseline and the improvements that have been made to date. In addition, as requested in the questionnaires, the process could be simplified and adjusted rather than adding more resources to it.

- Page 5, Recommendations 10 and 11, these are at the heart of the division between the PP and BE. An examination of how NOAA conducts its matrix is warranted. Similar to any relationship, the planning and the execution must occur hand-in-hand in order to be effective in an end-to-end system.

Recommendations

- Many of the existing recommendations call on PPI, PA&E, and CFO to lead adjustments to PPBES. Emphasize the cross-NOAA responsibility for PPBES evaluation and restructuring and the vital inclusion of line offices and the execution side of the organization in these efforts.
- Any realignment of the system should be done only after an end-to-end process review of PPBES.
- Examine the phrasing throughout the report to keep it objective and eliminate subjective comments.
- Consider moving much of the report to appendices and retain the findings and recommendations. Simplify the report, as well as the system.

4) John Oliver, NMFS Deputy Assistant Administrator

Overall, the report is improved from the draft that was circulated to the Councils, although it still provides a lot of background information that is not terribly helpful. We do appreciate that many of the “ideas” for improving PPBES that had not been thoroughly vetted, and that had the potential to create other problems, were removed.

The review highlights the four goals of PPBES – yet the review does not describe that NOAA has not achieved one of the main goals – it has not helped achieve our statutory and regulatory mandates. The Magnuson Stevens Act (excluding funding for new reauthorization requirements) and Endangered Species Act are two of NOAA’s strongest mandates, yet they have been underfunded since the start of PPBES and it is continually difficult to defend these programs and maintain current serves, much less to meet unmet needs, due to competing NOAA priorities and a limited fiscal environment.

General Finding - Under general finding the reviews states “...The misperception that PPBES is a process to increase the budget persists and, as result, individual office or program interests, rather than corporate or national interests, still dominate conversation within the PPBES process.” It must be noted that in a few cases a single program does represent the national interests of NOAA. For example the fisheries management and protected species programs are very well defined and nationally focused. This clarity of focus should be recognized and rewarded. All too often the Goals have focused on a “popular” vote method of management, which only allows those budget items with multiple program components to pass through. This is not the best way to achieve strategic focus in the agency. In more recent years the Ecosystem Goal Team has improved its ability to take a “national” focus in balancing core missing needs (such as meeting statutory and regulatory requirements) with more overarching Goal priorities. NOAA is too large and complex for PPI, PA&E, and NOAA Leadership through the NEP and NEC to fully analyze and understand every resource issue: as a result, NOAA “corporately” seems to pay more attention to “cross program” issues than the core part of NOAA’s business. Recognizing that PPBES is an important tool to get traction for new ideas and approaches, particularly those that touch multiple aspects of NOAA’s mission, it also is important for NOAA to be able to recognize when a more focused issue is equally as important for serving the national interest.

Ongoing programs are currently not well served by PPBES. Most of the focus has been on new initiatives and large high profile projects (e.g., Satellites) to the detriment of the core mandates of the agency. There needs to be a balance between maintaining core needs along with limited new initiatives.

Under the specific recommendations;

- 1) **Workforce** – most programs do have at least one staff member whose job is PPBES. It is their “day job”. However, it is recognized that multiple staff get involved at various points in the process due to their particular expertise. These staff would be engaged no matter what budget and planning process is used and should expect some amount of their time be devoted to planning and budgeting. However, some of the concern of people who engage occasionally in PPBES is that the system is very complex, and it is very difficult for them to learn what is needed and expected and then to get up to speed enough to provide useful information. Reducing complexity and providing different types of training that is appropriate for people who engage in PPBES in different ways may alleviate this kind of staff concern.
- 2) **Implementation** – There needs to be a balance between implementing everything the same vs. allowing some individual freedoms and creativity.

NEP Response to Draft 4 and Related Meeting Notes (04 December)

1. **Planning, Programming, Budgeting, and Execution System (PPBES)** – Michael Abreu (NESDIS) briefed the report he and Gary Matlock developed in response to NEP direction for an evaluation of NOAA's PPBES; they requested NEP approval of the report prior to releasing it NOAA-wide for comment.

Decisions:

- Refine the draft report based on NEP comments. Include, for example, the following:
 - Recommendation 1: Provide examples of cross-line office initiatives (e.g., Mercury initiative, Arctic planning).
 - Recommendations 2, 3, 4, 5: Indicate ongoing monitoring for improvement.
 - Recommendation 6: Use review recommended to also describe what PPBES has done for NOAA and to try to standardize views across goals.
- In implementation, PA&E, PPI, and CFO (action leads) will work to gather data on the costs of PPBES.

Action:

- Submit revised report to NEP for virtual review. Plan to publish after the NEP virtual review. **POC:** Michael Abreu and Gary Matlock. **Due date:** February 6, 2009.

**NOAA Executive Panel (NEP) Meeting Notes
December 4, 2008**

In Attendance: Mary Glackin (DUS), CAPT Mike Gallagher (NMFS), CAPT Raymond Slagle (OMAO), Bob Byrd (NWS), Chris Cartwright (NOS), Craig Mclean (OAR), Charlie Baker (NESDIS), Paul Doremus (PPI), Maureen Wylie (CFO; AGO), Bill Broglie (CAO), Stan Wojnar (CIO), Eddie Ribas (WFMO), Steve Austin (PA&E), Louisa Koch (Ed), Jane Chalmers (OGC), Scott Smullen (Comms), Chet Koblinsky and Krisa Arzayus (Climate Goal), Ward Seguin (Weather & Water Goal), CAPT Steve Barnum and Ashley Chappell (Commerce & Transportation Goal), Martin Yapur (Modeling & Observations Goal), Casey Brennan (PCO), Michelle Reed and Jessica Kondel (DUS), Kelly Quickle (DCES), Joe Brown and Karen Praner (DCO), and guests: Gary Matlock (NOS), Michael Abreu (NESDIS), Jim Murray (Sea Grant), Pete Jones (NMFS), Nancy McKiethan and Lisa Iwahara (PPI), PPI Guests: Deanne Watts (Carney) and Cleve Pillifant (Management Concepts).

- 1. Planning, Programming, Budgeting, and Execution System (PPBES)** – Michael Abreu (NESDIS) briefed the report he and Gary Matlock developed in response to NEP direction for an evaluation of NOAA's PPBES; they requested NEP approval of the report prior to releasing it NOAA-wide for comment.

Discussion:

- DUS observed there was a miscommunication and pointed out the NEP's intention with the August 11, 2008 tasking was for the NOAA workforce to help shape this report; not to have the NEP approve it for subsequent comments from the workforce. NEP approval followed by workforce comment period does not send the message that leadership wants to involve and engage our people.
- NEP suggested the first sentence on Slide 8 should be removed; the bullet should read: "NOAA's current PPBES should be retained and improved". Presenter agreed and added that the report reflects that verbiage.
- DUS noted the goals on Slide 33 and asked if we have compiled anecdotal evidence to show that NOAA is meeting them. Presenter stated that as a qualitative study, the exact progress against each goal could not be measured. However, presenter acknowledged the number of cases where anecdotal evidence specifically supported each of the four goals was not tabulated and linked back to demonstrate that goals are being met.
- NEP discussed the intention and ramifications of implementing Recommendation 11 (Slide 24) and concluded that the concept, program managers controlling funding for their programs, is laudable, but challenges and risks would need to be carefully assessed before committing to this direction.
- NEP commented on some aspects associated with implementing recommendations: the performance-based rating system is flexible and can be used to facilitate implementation; maintaining transparency during planning is a challenge because direction is being decided so a limited number of people should be involved - councils must inform the workforce, articulating why decisions are being made; the scope/level of effort associated with many recommendations is ambiguous and could lead to unrealistic expectations. Presenter stated that the recommendations were options for NOAA management to consider, derived from the totality of comments received. The study did not attempt to analyze or assess the pros and cons of implementation.

- DUS again expressed concern about releasing the report for comment after NEP approval, rather than involving the workforce to create the draft report. The presenter advised that 43% of NOAA employees solicited completed the questionnaire used as a basis for the report and that Focus Group, Working Group and NOAA Corporate Council responses were also included in the report; all respondents were given the opportunity to provide recommendations. CFO added that the report incorporates ideas from the 110 people who comprise the programming/budget community.
- NEP discussed issues with the report and recommendations: We cannot state PPBES "should be and must be maintained" but that we are improving the process (Slide 8); Recommendation 1: include details of one or two cross-line office initiatives; Recommendations 2, 3, 4, 5 are process-oriented and require continual monitoring for update/improvement; clarify that Recommendation 6 intends to both improve and communicate the process (consider this an opportunity to develop a standardized view across goals and describe what PPBES has done for NOAA); Recommendation 11 is one possible action plan for Recommendation 10, but substantial analysis needs to be done before endorsing it.
- DUS stated our intent for the PPBES review was to improve the process and solidify commitment from the workforce. Considering recommendations from this effort's lead offices: CFO, PA&E, and PPI, DUS concluded even though the entire workforce was not involved in creating the report, their representative views were incorporated so it should not go out for further comment. Rather, revise the PPBES report with suggestions from today's discussion and send it to the NEP for approval through the virtual process.

Decision:

- Refine the draft PPBES report based on today's NEP. Include, for example, the following:
 - Recommendation 1: Provide examples of cross-line office initiatives (e.g., Mercury initiative, Arctic planning).
 - Recommendations 2, 3, 4, 5: Indicate ongoing monitoring for improvement.
 - Recommendation 6: Use review recommended to also describe what PPBES has done for NOAA and to try to standardize views across goals.

Action:

- Submit revised report to NEP for virtual review. Plan to publish after the NEP virtual review. **POC:** Michael Abreu and Gary Matlock. **Due date:** February 6, 2009.

Appendix 4. Visualization of Structure

One of the fundamental sources of complexity in PPBES is the relationship between the hierarchical structures of the NOAA program and the organization. Neither structure is tangible, nor are the linkages between them. To facilitate discussion of the Team's findings and recommendations, we used these graphics to depict the structural relationships in a way that textual descriptions could not. In other words, the diagrams in this Appendix are an attempt to depict visually how the two structures do or might relate.

While the diagrams were crafted to communicate information as clearly as possible, the complexity of the structural relationships makes a simple graphical depiction unrealistic. For the information to be meaningful, we needed to include the full detail of the intersecting structures and their semantic elements. These graphics are included in the report because they were important pieces of information used during our discussions on structural issues related to PPBES, and represent our thinking relative to some of the findings and recommendations.

What is the Common Denominator?

Two Structures, One Crosswalk

At NOAA, the crosswalk between the appropriations structure and the program structure occurs from PPAs to Program Capabilities (Figure 1). Strictly speaking, there is no "lowest common denominator" because PPAs have a many-to-many relationship with Program Capabilities, and the dollars for one are split by percentage to translate to the other.

A one-to-one relationship at some level in both structures would yield a common denominator and make the crosswalk simpler to work with. This could be done below the PPA-Capability level (such that "Projects" would be common to both). It could also be done at a higher level in both structures (Figures 2 and 3), such that the portions of each structure below the crosswalk were entirely parallel (e.g., create a "program" for each FMC, or create a "goal" for each line).

A crosswalk at a higher organizational level would be even easier to work with because the greatest portions of both structures would be linked via one-to-one relationships, but it would require artificially "retrofitting" each organizational element below this level with a strategic programmatic objective. It would also risk reinforcing organizational stovepipes.

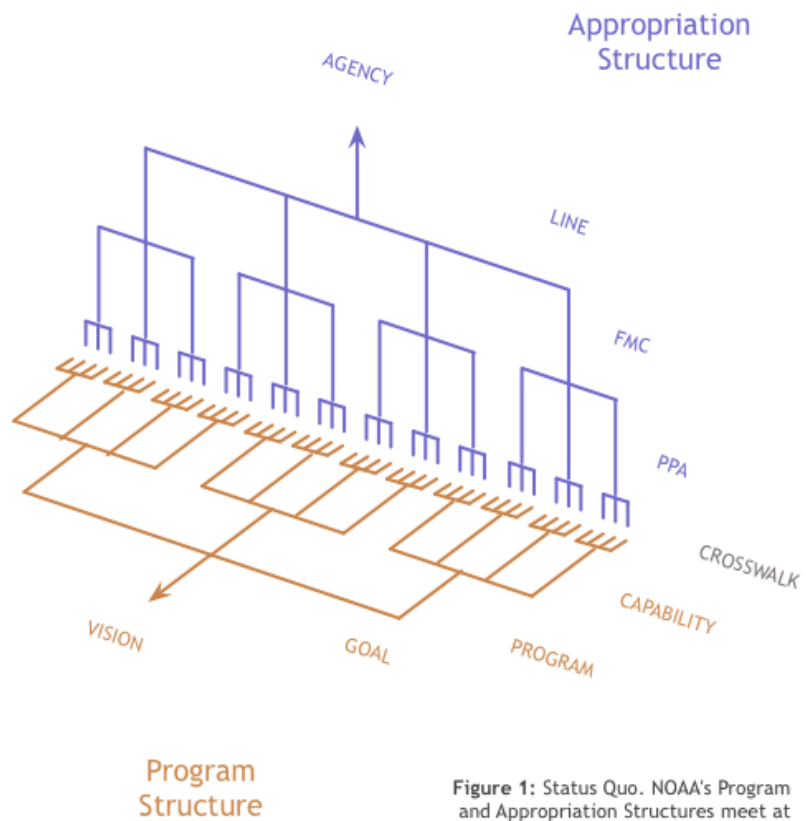


Figure 1: Status Quo. NOAA's Program and Appropriation Structures meet at the Capability-PPA level with no common denominator.

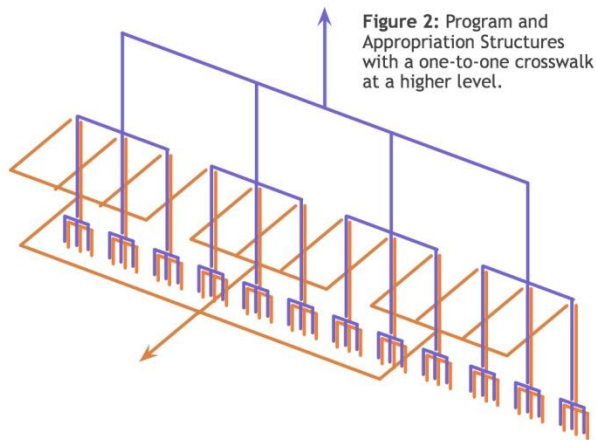


Figure 2: Program and Appropriation Structures with a one-to-one crosswalk at a higher level.

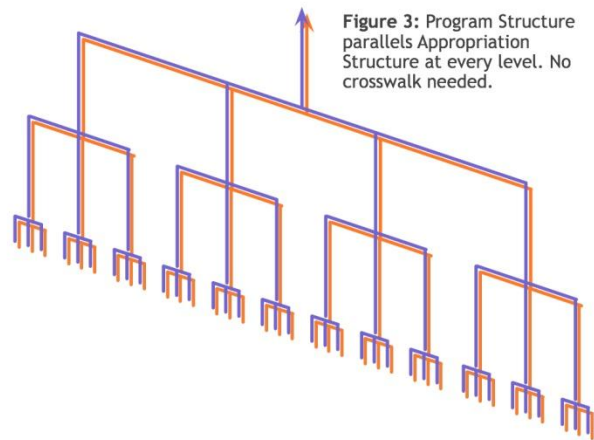


Figure 3: Program Structure parallels Appropriation Structure at every level. No crosswalk needed.

Figure 2 displays the Program and Appropriation structures diverging at the Program-FMC level, such that an FMC manager would be synonymous with "Program Manager." This one person would have authority to Plan, Program, Budget, and Execute comprehensively for a Program. Responsibility for integration would shift to higher levels, where Goal Teams would still have authority to plan and program and Lines would still have authority to budget and execute.

Figure 3 takes the alignment of Program Structure to Appropriations Structure to its extreme, wherein one mirrors the other precisely. Each Line would have a strategic goal, each FMC would have a strategic programmatic objective. No goal teams would be necessary, but integration across Lines would need to be realized through separate mechanisms. Figure 4, for comparison, shows an agency with no strategy and no corresponding Program Structure at all.

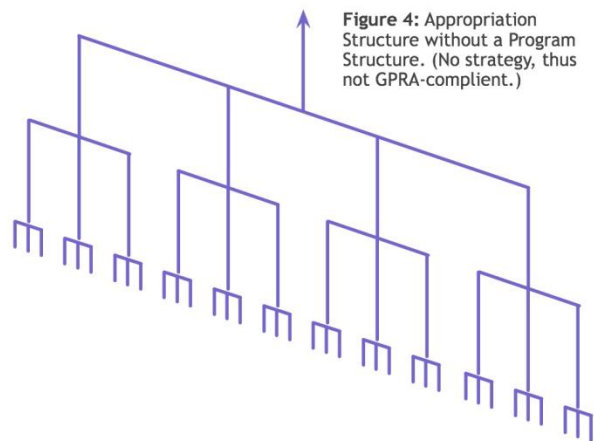
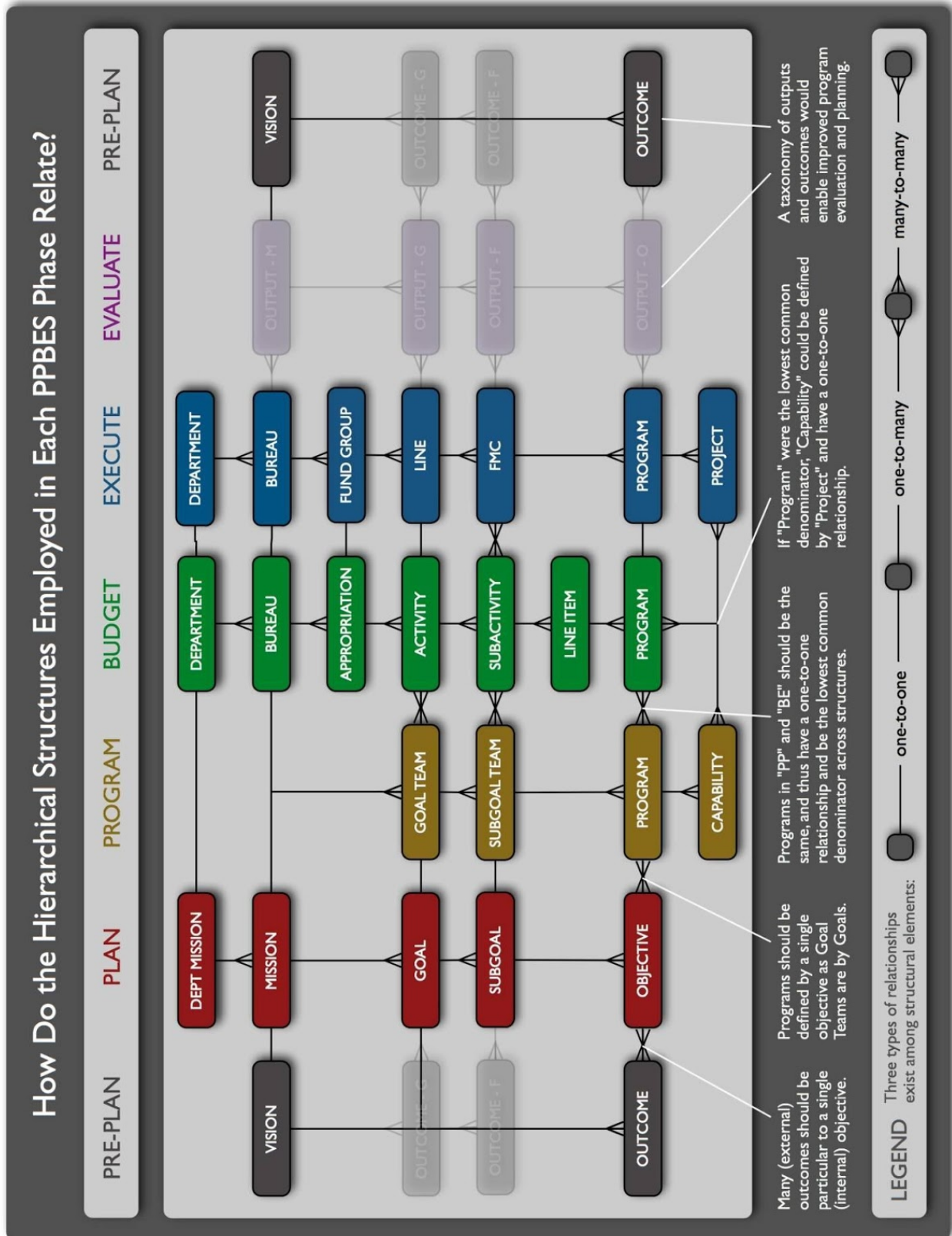


Figure 4: Appropriation Structure without a Program Structure. (No strategy, thus not GPRA-compliant.)

Does Structure Impede Synchronization?



How Could We Track the Success of Annual Priorities?

Annual Priorities from AGM					FY11-15 Program		FY11 DoC Submit		FY11 DoC Passback		FY11 OMB Submit		FY11 OMB Passback		FY11 President Budget		FY11 Appropriation		FY11 AOP	
Goal	Program	Capability	\$	Base	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes
				Alternative	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes
				Alternative	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes	\$	notes
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PPI analysts coordinate with analysts at PA&E and CFO to determine changes in level of financial commitment to implementation of annual corporate priorities.

Jan 09

Mar 09

Apr 09

Nov 09

Dec 09

Feb 10

Aug 10

Oct 10

Appendix 5. Frequently Asked Questions

The PPBES Review Team did not conduct a cost-benefit analysis as charged by the Deputy Undersecretary, why not?

The Team acknowledges that the final report does not provide a quantitative cost-benefit analysis. Indeed, during a progress report to the NOAA Executive Panel (NEP) on 11 August 2008, the Team specifically informed the NEP that such an analysis would not be forthcoming. This inadequacy resulted primarily from a dearth of comprehensive, quantified cost data (direct, indirect, and opportunity costs) and quantifiable estimates of benefits. Direction provided by the NEP at that time was that pursuing a cost-benefit analysis of NOAA's PPBES was not necessary and, therefore, no additional attempts to obtain cost data were made. However, the Team feels that we accurately captured the prevailing views about NOAA's implementation of PPBES from information gathered during the review, such as from the questionnaires, Focus Group session, Working Group (WG) review and comment, NEP feedback, and review and comment of the NOAA corporate Councils and of Drs. Barzelay and Winter. The Team believes that, taken in its entirety, the final report provides a full and complete response to the four main questions found in the charge.

Why are the recommendations so vague? Why are the recommendations so specific?

The NEP asked the Team to provide specific recommendations it believed were simple and relatively costless to implement in the near-term (the so-called "low hanging fruit"), as well as recommendations it believed were the most important to implement over the long-term. In addition, the Team felt strongly that the recommendations needed to be reflective of the comments, responses, and recommendations collected and considered during the review.

The Team originally developed 31 separate recommendations with two goals in mind: 1) to provide a high degree of specificity and range of actionable items for NOAA's leadership to consider, and 2) to be open to and accommodate the multiple and divergent suggestions that had been offered from across all participants. However, comments from the PPBES WG, NOAA Councils, and from Drs. Winter and Barzelay on previous drafts of the final report indicated that the Team had developed recommendations that were too detailed; in other words, the Team had proposed recommendations too specific to best address the problems of PPBES.

In response to reviewer comments, the Team re-evaluated the recommendations articulated in earlier drafts of the final report. The logic for re-evaluating the recommendations was to avoid making recommendations that could exacerbate existing or create new problems for NOAA and its workforce if implemented without careful

study. In the end, the Team developed recommendations for NOAA's consideration at a level of specificity analogous to the level of the findings. The Team tried to avoid recommending specific, directive steps that NOAA should take in order to address a specific problem. Achieving a balance between too much and not enough specificity in the recommendations was challenging, but the Team believes that the final report provides concrete recommendations without limiting the many options available to achieving improvement.

For the questionnaire, did the Review Team solicit input from contractors who work with PPBES? If not, why not?

No, the Team restricted collection of information through questionnaires to NOAA's Federal workforce only. The Team could not hope to secure guidance from the Office of Management and Budget on: 1) the applicability of the social research requirements related to internal, non-public surveys within an agency, or 2) whether contractors are considered "the public" in the instance of internal data collection efforts and still meet imposed deadlines. Thus, because of the limited time available for data collection, the Team refrained from soliciting input from contractors. As a result, the experiences, beliefs, and opinions of contract personnel working in NOAA in some capacity within PPBES are not necessarily reflected in the review findings.

Who did the Review Team solicit input from?

The Team solicited information via the questionnaire from those individuals in NOAA who have primary responsibility for and authority over a specific aspect of NOAA PPBES, including those directly accountable for the execution of Congressional appropriations to NOAA. These persons included:

- Line Office Assistant Administrators
- Line Office Deputy Assistant Administrators
- Staff Office Directors
- Mission Goal Team Leads
- Mission Support Sub-Goal Team Leads
- Program Managers
- Council Chairs
- Line Office Chief Financial Officers
- Regional Team Leads
- Financial Management Center Managers

To reach a more tactical level, the Team sponsored a focus group which included members of a self-organized group of people in NOAA who regularly engage in PPBES-related work. The Team also relied upon the PPBES WG to review and comment on earlier drafts of the final report, particularly the recommendations. The WG was populated by nominations from the NEP. Finally, the Team solicited, received, and

considered comments on previous drafts of the final report from individual members of the NEP, or their designees, as well as the NOAA Councils. The Team would have liked to have solicited input, data, and review comments from more persons and entities across NOAA. However, the Team believes that it did a good job of being inclusive, given the limited time and resources made available for the review.

Why didn't the Team conduct a quantitative survey?

Limited access to the technology and software necessary to conduct a quantitative survey in the time allotted for this review curtailed the type of survey the Team could implement effectively. Rather than undertake a quantitative assessment, the Team opted to administer a brief, open-ended questionnaire. This style of questionnaire was deemed advantageous because the use of open-ended questions provided respondents with greater flexibility to highlight the issues most salient to them. Thus, this approach facilitated a more exploratory assessment of NOAA's PPBES, which was beneficial because the Team could not anticipate the nature and range of issues that would emerge. Thus, the breadth of issues was more effectively captured using this approach. However, this approach was not effective at identifying the depth of issues identified, meaning that it did not allow the Team to draw conclusions with confidence about relative importance of the problems or solutions identified by respondents.

Why is the report so long? Can't you move much or all of this information to an Appendix or remove it from the report entirely?

The PPBES Review Team felt very strongly that, where practical and appropriate, all information collected and compiled for the purpose of the review should be included in the final report. In response to a recurring criticism concerning the amount of included information, the Team moved much information to the Appendices. However, the Team believes that the content of the body of the report as it presently exists is valuable and, therefore, should be retained.

Given the scope of the charge, the resources available, and the time provided to conduct the review, the Team tried strenuously to be inclusive and produce a high quality and useful report. Thus, in the spirit of openness and transparency, the Team opted to include all work products in the final report because they reflect the level of participation from the PPBES community throughout the review, and they document the many ideas and perceptions that were offered and received, often in participants' own voices. In addition, by providing as much of the information that supports these findings and recommendations as possible, and by self-critiquing the process and methods, the Team freely invites the NOAA PPBES community to draw their own conclusions about the strengths and weaknesses of the product.

Additionally, this review may someday serve as a starting point for future evaluations of NOAA PPBES. Consequently, having more information available, not less, will be advantageous to those responsible for future reviews and NOAA more generally. Indeed, the report is lengthy. However, the Team believes that this length is an acceptable tradeoff to achieve maximum transparency and effectively document the review process. To assist the reader in navigating the document more successfully, we provide an Executive Summary and a detailed Table of Contents.